Don Hambert
938-3174

CONTRACT DOCUMENTS

CITY OF

ELGIN, OREGON

BIRCH STREET AND SOUTH 14TH AVENUE IMPROVEMENT PROJECT

1991

anderson perry & associates, inc.
engineering • surveying • materials testing
LA GRANDE, OR. WALLA WALLA, WA. LEWISTON, ID.

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FOR THE

CITY OF ELGIN, OREGON

BIRCH STREET AND SOUTH 14TH AVENUE

IMPROVEMENT PROJECT

1991

ANDERSON•PERRY & ASSOCIATES, INC.

Consulting Engineers

La Grande, Oregon
Walla Walla, Washington
Lewiston, Idaho

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CONTRACT DOCUMENTS

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ADVERTISEMENT FOR BIDS

City of Elgin
P. O. Box 128
Elgin, Oregon 97827

The City of Elgin invites bids for the construction of Birch Street and South 14th Avenue Improvement Project - 1991. The work will include the furnishing and placement of approximately 510 cubic yards (in-place) of base rock and surface rock and approximately 5,340 square yards of asphalt surfacing, 800 lineal feet of drainage trench, and other work. The Bid Schedule contains three alternatives for the asphalt surfacing: Alternative A - Hot Mix Asphalt Concrete Pavement (2-inch thickness); Alternative B - Emulsified Asphalt Concrete Pavement (2-inch thickness); Alternative C - Emulsified Asphalt Oil Mat (OSHD E-9). Bidders may furnish a bid on one, two, or all three of the alternatives. The City of Elgin reserves the right to select the lowest responsive bid for the bid alternative that is in the City's best interest. The City will be performing subgrade earthwork and the furnishing and placement of aggregate base material.

Sealed bids for the described project will be received by the City of Elgin at City Hall, P.O. 128, Elgin, Oregon 97827, until 4:00 p.m., Pacific Time, July 19, 1991, and then publicly opened and read aloud. The contract time for all work shall be twenty (20) calendar days commencing when the Contractor begins work on the project site and all work shall be completed no later than August 30, 1991.

Bidder, as part of the bid, will be required to certify to the following:

1) Bidder is registered with the State of Oregon Construction Contractors Registration Board in accordance with ORS 701. Subcontractors of the successful bidder will also be required to be registered.

2) Bidder will comply with the applicable provision of ORS 279.348 through ORS 279.350, the Oregon Prevailing Wage Law, and ORS 279.316 and ORS 279.334 in the hours of employment and the payment of overtime.

3) Bidder is in compliance with the State of Oregon tax laws in accordance with ORS 305.385.

4) Bidder does not discriminate against minorities, women, or emerging small business enterprises in obtaining subcontracts.

5) Bidder shall state whether company is a non-resident or resident bidder as defined in ORS 279.029.

The Contract Documents may be examined at the following locations:

City Hall, Elgin, Oregon
Anderson•Perry & Associates, Inc., 1901 Fir Street, La Grande, Oregon
Anderson•Perry & Associates, Inc., 214 E. Birch Street, Walla Walla, Washington

Copies of the Contract Documents may be obtained at the office of Anderson•Perry & Associates, Inc., 1901 Fir Street, P.O. Box 1107, La Grande, Oregon 97850, upon non-refundable payment of $20.00 for each set.

Each bid on the project must be submitted on the prescribed form and accompanied by a certified check or bid bond payable to the City of Elgin, Oregon in an amount not less than 5 percent of the amount bid. The successful bidder will be required to furnish the necessary additional bonds for the faithful performance of the contract as prescribed in the contract documents.

The City of Elgin may reject any bid not in compliance with all prescribed requirements, and may reject for good cause any and all bids upon finding by the City it is in the public interest to do so.

The City of Elgin, Oregon is an equal opportunity employer.

INFORMATION FOR BIDDERS

Bids will be received by the City of Elgin, Oregon (herein called the "Owner"), at City Hall until 4:00 p.m., Pacific Time, July 19, 1991, and then at said office publicly opened and read aloud.

Each bid shall be submitted in a sealed envelope, addressed to the Mayor at City Hall. Each sealed envelope containing a bid shall be plainly marked on the outside as bid for the City of Elgin Birch Street and South 14th Avenue Improvement Project - 1991, and the envelope shall bear on the outside the name of the bidder, address, and Oregon Construction Contractors Board Registration number. If forwarded by mail, the sealed envelope containing the bid shall be enclosed in another envelope addressed to the Owner at City Hall, City of Elgin, P.O. Box 128, Elgin, Oregon, 97827.

All bids shall be made on the required bid form. All blank spaces for bid prices shall be filled in, in ink or typewritten, and the bid form shall be fully completed and executed when submitted. Only one copy of the bid form is required. A conditional or qualified Bid will not be accepted.

Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the bidder.

Each bidder shall inform himself/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the drawings and contract documents (including all addenda).

Each bidder shall satisfy himself/herself of the accuracy of the estimated quantities in the bid schedule. After bids have been submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be performed. A successful bidder shall not be relieved of the obligation to furnish all material and labor necessary to carry out the provisions of the contract. The failure or omission of the bidder to examine any form, instrument or document, or to visit the site shall in no way relieve the bidder from any obligation in respect to his bid.

The contract documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Contractor or relieve the Contractor from fulfilling any of the conditions of the contract. Any supplemental

instructions shall be in the form of written addenda to the specifications which, if issued, shall be mailed to all prospective bidders (at the respective addresses furnished for such purposes), not later than three days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve such bidder from any obligation under the bid as submitted. All addenda so issued shall become part of the contract documents.

Each bid shall be accompanied by a bid bond or certified check payable to the Owner for five percent of the total amount of the bid. As soon as the bid prices have been compared, the Owner will return the certified checks, if any, of all except the three lowest responsible bidders. When the agreement is executed the certified checks, if any, of the two remaining unsuccessful bidders will be returned. The bid bond or check of the successful bidder will be retained until the payment bond and performance bond have been executed and approved, after which a check, if any, will be returned.

A performance bond and a payment bond, each in the amount of 100 percent of the total bid price with a corporate surety approved by the Owner, shall be required for the faithful performance of the contract. Attorneys-in-fact who sign bid bonds, payment bonds and performance bonds shall file with each bond a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded shall be required to execute the agreement and obtain the performance bond and payment bond and provide the required certificate of insurance within ten (10) calendar days from the date when the notice of award is delivered to the bidder. The notice of award shall be accompanied by the necessary agreement, certificate of insurance and bond forms. In case of failure of the bidder to execute the agreement and other required documents, the Owner may at the Owner's option consider the bidder in default, in which case the bid bond accompanying the bid shall become the property of the Owner.

The Owner within twenty (20) days of receipt of acceptable performance bond, payment bond, certificate of insurance and agreement signed by the party to whom the agreement was awarded shall sign the agreement and return to such party an executed duplicate of the agreement. Should the Owner not execute the agreement within such period, the bidder may by written notice withdraw the signed agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

The notice to proceed shall be issued within ten (10) days of the execution of the agreement by the Owner. Should there be reasons why the notice to proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the notice to proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the Contractor may terminate the

agreement without further liability on the part of either party.

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the agreement and to complete the work contemplated therein. Said investigation shall be as per ORS Chapter 279. The low bidder shall supply the names and addresses of major material suppliers and subcontractors when requested to do so by the Owner.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

Oregon law requires anyone who is engaged for compensation in construction activities to be registered with the State of Oregon Construction Contractors Board in accordance with ORS 701. Registration is required for any individual or business entity which advertises, offers, bids, or arranges to do, or actually does any construction, alteration, remodeling, or repair involving residential, commercial, industrial, or public works improvements. This includes partnerships, corporations, and self-employed individuals, whether working by the hour, week, job, or "cost-plus", whether by written contract or oral agreement.

Bid items calling for unit prices show estimated quantities of work to be performed. These quantities, although shown with as much accuracy as possible, are approximate only and are for bidding purposes only. Payment of the Contractor shall be made on the work actually performed by the Contractor. The Owner reserves the right to increase or decrease the amount of these quantities as may be deemed necessary and by so doing will not invalidate the unit prices as listed in the bid. Unit prices shown in the bid will be the basis of payment for all work performed whether an increase or decrease in original included quantities. No additional compensation or adjustments in unit prices will be made if the amount of work is increased or decreased from that estimated in the bid schedule.

Bidders may furnish a bid for one, two, or all three of the bid alternatives. Award of the contract will be made to the lowest responsive bidder for the bid alternative that is in the Owner's best interest. Pursuant to ORS 279.029, in determining the lowest responsive bidder, the Owner for the purpose of awarding a contract shall add a percent increase in the bid of each non-resident bidder equal to the percent, if any, of the preference given to that bidder in the state in which that bidder resides. The Owner may reject any bid not

in compliance with the prescribed requirements and, however, may wave any informalities and minor defects in any and all bids and may reject any and all bids upon finding by the Owner it is in the public interest to do so.

A responsive bid shall be defined as complying with all conditions set forth in the contract documents including submitting the following items:

(1) A completed and signed bid and bid schedule.

(2) A completed and signed bidder's performance and payment bond statement.

(3) A properly executed bid bond or certified check in the amount of 5 percent of the total amount of the bid.

(4) A completed and signed bidder's certification statement.

The bid, bid bond, and other forms as required at the bid opening are bound in these contract documents for the convenience of the bidder.

Samples of the following forms are included in these contract documents. Copies of these forms will be given to the successful bidder as required.

Agreement
Payment Bond
Performance Bond
Notice of Award
Notice to Proceed
Change Order
Partial Payment Estimate
Certificate of Insurance

There will not be a formal prebid tour of the project.

The Engineer is Anderson•Perry & Associates, Inc. Their address is 1901 Fir Street P.O. Box 1107, La Grande, Oregon 97850. Telephone No. (503)963-8309

Contact Person: Howard L. Perry, P.E.

BID

Proposal of _____ (hereinafter called "Bidder"), organized and existing under the laws of the State of _____ doing business as _____ *.

To the City of Elgin, Oregon (hereinafter called "Owner").

In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the construction of Birch Street and South 14th Avenue Improvement Project - 1991 in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

By submission of this Bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other bidder or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within the project schedule specified in the General Conditions. Bidder further agrees to pay as liquidated damages, the sum of $ 200.00 for each consecutive calendar day thereafter as provided in Section 15 of the General Conditions.

Bidder acknowledges receipt of the following addenda:

_____

_____

*Insert "a corporation", "a partnership", or "an individual" as applicable.

BID SCHEDULE

Bidder agrees to perform all work described in the Contract Documents for the following unit prices or lump sum prices.

NOTE: Bids shall include sales tax and all other applicable taxes and fees.

NO.	BID ITEM	UNIT	UNIT PRICE	AMOUNT	TOTAL PRI
ALTERNATIVE A - HOT MIX ASPHALT CONCRETE PAVEMENT					
1.	Mobilization (Not to Exceed 5% of the Total Bid Price)	L.S.		All Req'd	
2.	Aggregate Base Rock	Ton		180	
3.	Finish Grading of Aggregate Base Rock	L.S.		All Req'd	
4.	Base Rock (in-place)	C.Y.		360	
5.	Surface Rock (in-place)	C.Y.		150	
6.	2" Hot-Mix Asphalt Concrete Pavement	S.Y.		5,340	
7.	Asphalt Seal Coat	Ton		4	
8.	Drainage Trench	L.F.		800	
9.	Soil Sterilant on Shoulders	L.S.		All Req'd	
10.	Adjustment of Utility Covers	Each		2	

TOTAL BID PRICE - ALTERNATIVE A $_____

NO.	BID ITEM	UNIT	UNIT PRICE	AMOUNT	TOTAL PRI
ALTERNATIVE B - EMULSIFIED ASPHALT CONCRETE PAVEMENT					
1.	Mobilization (Not to Exceed 5% of the Total Bid Price)	L.S.		All Req'd	
2.	Aggregate Base Rock	Ton		180	
3.	Finish Grading of Aggregate Base Rock	L.S.		All Req'd	
4.	Base Rock (in-place)	C.Y.		360	
5.	Surface Rock (in-place)	C.Y.		150	
6.	2" Emulsified Asphalt Concrete Pavement	S.Y.		5,340	

BID SCHEDULE

7.	1/4"-No. 10 Emulsified Asphalt Chip Seal	S.Y.		5,340	
8.	Drainage Trench	L.F.		800	
9.	Soil Sterilant on Shoulders	L.S.		All Req'd	
10.	Adjustment of Utility Covers	Each		2	

TOTAL BID PRICE - ALTERNATIVE B $_____

NO.	BID ITEM	UNIT	UNIT PRICE	AMOUNT	TOTAL PRICE
ALTERNATIVE C - EMULSIFIED ASPHALT OIL MAT					
1.	Mobilization (Not to Exceed 5% of the Total Bid Price)	L.S.		All Req'd	
2.	Aggregate Base Rock	Ton		180	
3.	Finish Grading of Aggregate Base Rock	L.S.		All Req'd	
4.	Base Rock (in-place)	C.Y.		360	
5.	Surface Rock (in-place)	C.Y.		150	
6.	Emulsified Asphalt Oil Mat	S.Y.		5,340	
7.	Drainage Trench	L.F.		800	
8.	Soil Sterilant on Shoulders	L.S.		All Req'd	
9.	Adjustment of Utility Covers	Each		2	

TOTAL BID PRICE - ALTERNATIVE C $_____

Respectively Submitted:

_____ _____
Signature Address

_____ _____
Title Date

_____
Contractor's Registration Number

(SEAL - if BID is by a corporation)

Attest: _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____ _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto _____ as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____ , 19___ .

The condition of the above obligation is such that whereas the Principal has submitted to _____ a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the _____ _____

NOW, THEREFORE,

(a) If said Bid shall be rejected, or

(b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the form of Agreement attached hereto (properly completed in accordance with the Bid) and shall furnish a Performance Bond for his faithful performance of said contract, and a Payment Bond for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation herein stated.

BID BOND

The Surety, for value received, hereby stipulates and agreed that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused there corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____
Principal

By: _____

_____
Surety

By: _____

IMPORTANT - Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

BIDDER'S PERFORMANCE AND PAYMENT BOND STATEMENT

_____, hereinafter referred to as Contractor, is submitting a bid to City of Elgin, Oregon pursuant to the latter's Advertisement for Bids for the project City of Elgin, Oregon Birch Street and South 14th Avenue Improvement Project - 1991 .

Contractor certifies that if it is awarded the contract, Contractor has the financial ability to obtain good and sufficient bonds issued by a surety to the Owner in sums equal to the amount of the bid providing for the faithful performance of the contract and payment of labor and materials.

Contractor understands and agrees if Contractor fails to provide the performance and payment bonds, the Owner may reject such a bid and the bid bond or security submitted with the subject bid may be forfeited.

The surety requested to issue the performance and payment bonds will be _____. Contractor hereby authorizes said surety company to disclose any information to the Owner concerning Contractor's ability to supply performance and payment bonds in the amount of the contract.

_____
Contractor

By: _____

BIDDER'S CERTIFICATION STATEMENTS AS REQUIRED BY CERTAIN OREGON REVISED STATUTES (ORS)

The Bidder, _____, certifies to the following:
Company Name

(1) Bidder is registered with the Oregon Construction Contractors Registration Board in accordance with ORS 701.035 through 701.055. The Bidder certifies that Registration Number _____ allows his/her company to perform work on Public Works Projects and that this registration is current and valid. The Bidder further certifies that, if awarded the contract, all subcontractors performing work will be registered with the Construction Contractors Registration Board in accordance with ORS 701.035 through 701.055 before the subcontractors commence work under the contract.

(2) On all public contracts exceeding $10,000 and not covered under the federal Davis-Bacon Act, Bidder will comply with the applicable provisions of the Oregon Prevailing Wage Law, ORS 279.348 through ORS 279.356 which provides input for the payment of not less than the prevailing wage rates, including fringe benefits, the posting of wage rates on the jobsite, the furnishing of payroll certifications, and other requirements. In addition, the Bidder will comply with ORS 279.316 and ORS 279.334 in the hours of employment and the payment of overtime.

(3) Bidder is in compliance with State of Oregon tax laws in accordance with ORS 305.385.

(4) Bidder, in accordance with ORS 279.111, does not discriminate against minorities, women, or emerging small business enterprises in obtaining any subcontracts.

(5) Bidder is a [Non-resident Bidder] or [Resident Bidder] (circle correct designation) as defined in ORS 279.029.

Bidder: _____
(Signature)

Title: _____

Date: _____

Project: _____

GENERAL CONDITIONS

GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Review and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in Contract Price and Time
15. Time for Completion and Liquidated Damages
16. Correction of Work
17. Subsurface Conditions/Underground Utilities
18. Suspension of Work, Termination and Delay
19. Payments to Contractor and Completion
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guarantee
30. Litigation/Arbitration
31. Taxes
32. Wage Rates

1. DEFINITIONS

1.1 Wherever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.

1.2 ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletion, clarifications or corrections.

1.3 BID - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

1.4 BIDDER - Any person, firm or corporation submitting a bid for the work.

1.5 BONDS - Bid, Performance, and Payment Bonds and other instruments of security, furnished by the Contractor and surety in accordance with the Contract Documents.

1.6 CHANGE ORDER - A written order to the Contractor authorizing an addition, deletion or revision in the work within the general scope of the Contract Documents, or authorizing an adjustment in the contract price or contract time.

1.7 COMPLETION - That date the Engineer issues a certificate stating that the work has been accepted by the Engineer and the Owner under the conditions of the Contract Documents.

1.8 CONTRACT DOCUMENTS - The contract, including Advertisement for Bids, Information for Bidders, Bid, Bid Bond, Agreement, Payment Bond, Performance Bond, Notice of Award, Notice to Proceed, Change Order, Drawings, General Conditions, Supplemental General Conditions, Specifications, Certifications, and Addenda.

1.9 CONTRACT PRICE - The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.10 CONTRACT TIME - The number of calendar days stated in the Contract Documents for the completion of the work.

1.11 CONTRACTOR - The person, firm or corporation with whom the Owner has executed the Agreement.

1.12 DRAWINGS - The part of the Contract Documents which show the characteristics and scope of the work to be performed and which have been prepared or approved by the Engineer. Drawings shall be synonymous with plans.

1.13 ENGINEER - The person, firm or corporation named as such in the Contract Documents.

1.14 FIELD ORDER - A written order effecting a change in the work not involving an adjustment in the contract price or an extension of the contract time, issued by the Engineer to the Contractor during construction.

1.15 NOTICE OF AWARD - Written notice of the acceptance of the bid from the Owner to the successful Bidder.

1.16 NOTICE TO PROCEED - Written notice issued by the Owner to the Contractor authorizing the Contractor to proceed with the work and establishing the start work date

1.17 OWNER - A public or quasi-public body or authority, corporation, association, partnership or individual for whom the work is to be performed.

1.18 PROJECT - The undertaking to be performed as provided in the Contract Documents.

1.19 RESIDENT PROJECT REPRESENTATIVE - The authorized representative of the Owner who is assigned to the project site or any part thereof.

1.20 SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a subcontractor, manufacturer, supplier or distributor which illustrate how specific portions of the work shall be fabricated or installed.

1.21 SPECIFICATIONS - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.22 START WORK DATE - The date contract time begins.

1.23 SUBCONTRACTOR - An individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for the performance of a part of the work at the site.

1.24 SUBSTANTIAL COMPLETION - That date as determined by the Engineer when the construction of the project or a specified part thereof is completed, in accordance with the Contract Documents.

1.25 SUPPLEMENTAL GENERAL CONDITIONS - Modifications to General Conditions required by a federal agency for participation in the project and approved by the agency in writing prior to inclusion in the Contract Documents, or such requirements that may be imposed by applicable state laws.

1.26 SUPPLIER - Any person or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.

1.27 WORK - All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the project.

1.28 WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when mailed to the said party at the last given address, or delivered in person to said party or authorized representative.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

2.1 The Contractor may be furnished additional instructions and detail drawings, by the Engineer, as necessary to carry out the work required by the Contract Documents.

2.2 The additional drawings and instruction thus supplied will become a part of the Contract Documents. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

2.3 The failure of the Engineer or Owner to act or not act under the Contract Documents, shall not be construed in any manner, to be a waiver of any of the terms and conditions of the Contract Documents, and the Contractor shall not thereby be relieved from performance and full compliance with all the terms and conditions of the Contract Documents and performance of the work.

3. SCHEDULES, REPORTS AND RECORDS

3.1 The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the Contract Documents for the work to be performed.

3.2 Prior to or at the pre-work conference, the Contractor shall submit a construction progress schedule showing the order in which the Contractor proposes to carry on the work, including dates at which the Contractor will start the various parts of the work, dates for placement of equipment orders, dates for equipment arrival, estimated date of completion of each part as applicable. The schedule shall demonstrate the Contractor's conformance to the time and schedule limitations set forth in the contract. The Contractor shall submit a revised schedule whenever significant changes in the order or progress of the work are anticipated, or whenever requested by the Engineer.

4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the Drawings and Specifications is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the work in accordance with the Contract Documents and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy or operation by the Owner.

4.2 In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on the Drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings. In case of conflicts between various sections of the Specifications, the most restrictive section or provision shall apply.

4.3 Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

4.4 Where the Contract Documents describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used.

4.5 The Specifications and Drawings are complementary and what is called for in one shall be as binding as if called for in both.

5. SHOP DRAWINGS

5.1 Wherever called for in these Specifications or on the Drawings, or when required by the Engineer, and after checking and verifying all field measurements, the Contractor shall furnish to the Engineer for review prints of each shop drawing for each item, material, component, process, etc., necessary to perform the work. The term "shop drawing" as used herein shall be understood to include detail design calculations, fabrication, and installation drawings, lists, graphs, operating instructions, manufacturer's data, etc. Unless otherwise required, said drawings shall be submitted at a time sufficiently early to allow review of same by the Engineer, and to accommodate the rate of construction progress required under the contract. All shop drawings shall have been checked by and stamped with the approval of the Contractor prior to submitting to the Engineer for review. The data shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable the Engineer to review the information.

5.2 The Contractor shall also submit to the Engineer for review and approval with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.

5.3 At the time of each submission, the Contractor shall in writing call the Engineer's attention to any deviations that the shop drawings or samples may have from the requirements of the Contract Documents. Manufacturer's data which is not applicable shall be lined out and applicable data shall be highlighted.

5.4 The Engineer will review with reasonable promptness shop drawings and samples, but the Engineer's review shall be only for general conformance with the design concept of the project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction, or to safety precautions or programs incidental thereto. The review of a separate item as such will not indicate approval of the assembly in which the item functions.

5.5 The Engineer will return two prints of each shop drawing to the Contractor, with comments noted thereon, within 15 calendar days following their receipt at his office. The Contractor shall make any corrections required by the Engineer and shall return the required number of corrected copies of shop drawings and resubmit new samples for review. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on previous submittals. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of the drawing. The Owner reserves the right to withhold monies due the Contractor to cover additional costs of the Engineer's review beyond the second submission.

(a) If drawings are returned to the Contractor marked "NO EXCEPTIONS NOTED", formal revision and resubmittal of said drawings will not be required.

(b) If drawings are returned to the Contractor marked "MAKE CORRECTIONS NOTED", formal revision and resubmittal of said drawing will not be required.

(c) If drawings are returned to the Contractor marked "REVISE AND RESUBMIT", the Contractor shall revise said drawing and shall resubmit 5 copies of said revised drawing to the Engineer.

(d) If drawings are returned to the Contractor marked "REJECTED", the Contractor shall revise said drawing and resubmit 5 copies of said revised drawing to the Engineer.

(e) If drawings are returned to the Contractor marked "SUBMIT SPECIFIED ITEM", The Contractor shall submit material requested but shall not be required to resubmit all previous material.

5.6 The Contractor's stamp of approval on any shop drawing or sample shall constitute a representation to the Owner and the Engineer that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that the Contractor has reviewed or coordinated each shop drawing or sample with the requirements of the work and the Contract Documents. The Engineer's review of shop drawings or samples shall not relieve the Contractor from responsibility for any deviations from the Contract Documents unless the Contractor has in writing called the Engineer's attention to such deviation at the time of submission and the Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence or review by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings.

5.7 Fabrication of an item shall not be commenced before the Engineer has reviewed the pertinent shop drawings and returned copies to the Contractor marked either "NO EXCEPTIONS NOTED", or "MAKE CORRECTIONS NOTED". Revisions indicated on the shop drawings shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications and shall not be taken as the basis of claims for extra work. The Contractor shall have no claim for damages or extension of time due to any delay resulting from the Contractor's having to make the required revisions to shop drawings (unless review by the Engineer of said drawings is delayed beyond a reasonable period of time and unless the Contractor can establish that the Engineer's delay in review actually resulted in a delay in the Contractor's construction schedule).

5.8 A copy of each shop drawing and sample shall be kept in good order by the Contractor at the job site and shall be available to the Engineer.

6. MATERIALS, SERVICES AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate review by the Engineer.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer. When required by the Engineer, the Contractor shall furnish to the Engineer a written certification from the manufacturer, stating that inspection and all specified tests have

been made on the supplied material and that results thereof comply with the appropriate specifications. The certification shall also state that all materials furnished are in accordance with the Contract Documents.

6.4 Materials, supplies and equipment shall be new and of current manufacture and shall be in accordance with samples submitted by the Contractor and in conformance with the specifications. Service and replacement components for all materials and equipment shall be normally stocked and readily available from established service centers and suppliers in Oregon, Washington, Idaho, or California.

6.5 Materials, supplies, or equipment to be incorporated into the work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

6.6 Unless otherwise specifically stated in the Contract Documents, any existing equipment or materials removed by the Contractor during the course of the work shall remain the property of the Owner. Equipment and materials shall be removed with care to prevent unnecessary damage and shall be neatly stored at a location adjacent to the site of the work as directed by the Engineer.

7. REVIEW AND TESTING

7.1 All materials and equipment used in the construction of the project shall be subject to adequate review and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

7.2 The Owner, through the Engineer, may perform certain testing and review services of the work. These testing and review services are provided for the Owner's information and in no way relieves the Contractor from his responsibility to comply with the Contract Documents.

7.3 The Contractor shall provide at his expense the testing and review services required by the Contract Documents. The Contractor shall also be responsible for providing his own construction monitoring and quality control program to insure the materials used on the project and in the Contractor's operations are in compliance with the Contract Documents. Materials which fail to meet the contract requirements shall not be used in the work.

7.4 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be reviewed, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will then furnish the Engineer the required

certificates of review, testing or approval.

7.5 Tests or reviews by the Engineer or others shall not relieve the Contractor from his obligations to perform the work in accordance with the requirements of the Contract Documents and does not make the Engineer an insurer of the Contractor's work.

7.6 The Engineer and his representatives will at all times have access to the work. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to review all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the work and also for any review, or testing thereof. The Contractor shall notify testing personnel at least 24 hours in advance of operations to allow for personnel assignments and test scheduling. All materials to be tested shall be provided by the Contractor at his expense. After tests are completed, the Contractor shall be responsible for repairing test areas to match original conditions. The Contractor shall remove all defective material from the site at his expense. The Contractor shall pay for all additional reviews and retesting required because of defective work or ill timed notices.

7.7 The Contractor shall not cover any work until the Engineer or his representative has been notified and has had a reasonable opportunity to observe the work. If any work is covered prior to observation by the Engineer or his representative and, if the Engineer considers it necessary or advisable that covered work be tested or reviewed, the Contractor, at the Engineer's request, will uncover, expose or otherwise make available for observation, or testing as the Engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, testing and reconstruction and an appropriate change order shall be issued.

8. SUBSTITUTIONS

8.1 Whenever any material, article or piece of equipment is identified on the Drawings or Specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function

to that specified, the Engineer may allow its substitution and use by the Contractor. Any cost differential shall be deductible from the contract price and the Contract Documents shall be appropriately modified by change order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the contract price or contract time.

9. PATENTS

9.1 The Contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified; however, if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

10. SURVEYS, PERMITS, REGULATIONS

10.1 The Owner shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the work together with a suitable number of bench marks adjacent to the work as shown in the Contract Documents. From the information provided by the Owner, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations, buildings, structures, forms, and other working points, lines, elevations and cut sheets. The Contractor shall notify the Engineer at least 3 days in advance of the time any survey control is required that is to be provided by the Engineer.

10.2 The Contractor shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the work including building, electrical and plumbing permits, etc., shall be secured and paid for by the Contractor unless otherwise stated in the Contract Documents. Permits, licenses and easements authorizing improvements on a third party's property of a permanent nature shall be secured and paid for by the Owner, unless otherwise specified. Copies of these permits and licenses, etc., are available for review from the Owner. The

Contractor shall comply with all requirements of these permits and licenses as they relate to the work, i.e., insurance, traffic control, scheduling, etc. The Contractor shall pay all inspection fees, flagging costs, etc., if any, required by the permit or license. Typical permits and licenses may include but are not limited to State Highway Permits, Railroad Crossing Permits, County Permits, etc.

10.4 The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in Section 13, "Changes in the Work".

11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. He shall take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to:

(a) All employees on the work and any other persons who may be affected thereby;

(b) All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site; and

(c) Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. The Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the Owner. The Contractor shall employ qualified personnel to properly handle any hazardous waste or asbestos (i.e., asbestos pipe), etc., which may be encountered in the work. He shall notify owners of adjacent utilities when prosecution of the work may affect them. The Contractor shall remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the Contract Documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or

anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

11.3 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss. He will give the Engineer prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby, and a change order shall thereupon be issued covering the changes and deviations involved, if warranted.

11.4 Cleaning up shall be a continuing process from the start of the work to final acceptance of the project. The Contractor shall, at all times, at his own expense and without further order, keep property on which work is in progress free from accumulations of waste material or rubbish caused by employees or by the work, and at all times during the construction period shall maintain structure sites, rights-of-way, easements, adjacent property, and the surfaces of streets and roads on which work is being done in a safe condition for the Contractor's workers and the public. Accumulations of waste materials that might constitute a fire hazard will not be permitted. Spillage from the Contractor's hauling vehicles on travelled public or private roads shall be promptly cleaned up. The Contractor shall take appropriate action to control dust caused by his operations. This shall include, but not be limited to, watering of exposed areas, cleaning of roadways, etc. This is considered a normal part of the construction project. Upon completion of the work the Contractor shall, at his own expense, remove all temporary structures, rubbish, and waste material, equipment and supplies, resulting from his operations. He shall leave such lands in a neat and orderly condition which is at least as good as the condition in which he found them prior to his operations. Should the Contractor fail to provide said cleanup upon 24-hour written notice, the Owner shall have the right to perform such work at the expense of the Contractor and withhold the cost from the Contractor's payments.

11.5 The Contractor shall arrange his work schedule such that all phases of work once started shall be diligently pursued until completed. The intent is that the work area shall not be disturbed for undue periods of time. Work shall not be left uncompleted. If the Engineer determines that work is not being diligently completed, he shall request the Contractor to complete said work. If the Contractor fails to complete the work as requested, the Engineer will not recommend further progress payments be approved by the Owner.

11.6 Should the Contractor work more than ten hours in any one day, or fifty hours in any one week, or on Sundays, or legal holidays, except in emergencies, the Contractor shall notify the Engineer two days in advance of any such overtime. The Owner will require the Contractor to pay all overtime costs of engineering and project observation services, and any direct cost incurred by the Owner, required during these periods, except in cases of emergencies beyond the control of the Contractor. If the Contractor works Saturday, he shall notify the Engineer by 10:00 a.m. the previous day.

11.7 The Contractor shall plan his operation, equipment, and materials storage so they do not unreasonably limit accessibility of residents, city personnel, and other persons in the construction area. Special attention shall be given to maintaining access to private residences during construction.

11.8 The Contractor shall be solely responsible for any trespass on adjacent property or injury thereto resulting from or in connection with his operations. He shall hold the Owner and the Engineer harmless from any claims that may result because of his trespass or the deposit of debris upon adjacent property.

11.9 The Contractor shall receive prior approval from the appropriate authority or utility owner before any public or private utility service is interrupted. The Contractor shall not disconnect or interrupt any existing utility service without 24-hour notification and approval from the utility owner. The Contractor shall give a minimum of 4 hours notice to all utility customers. No utility service shall be disconnected or interrupted for more than 9 hours or as required by the utility owner, whichever is less, in any 24-hour period. When regular utility service interruption is required during the course of the work, the Contractor shall submit a written plan to the Engineer and utility owner which details the proposed work, notification procedures, and estimated extent of service interruption. The Contractor must obtain written approval of his plan from the utility owner prior to interrupting the utility service. The Contractor shall make every effort possible to provide continuous utility service to all utility customers. When special conditions exist where an interruption of utility service would create an extra hardship on the utility customer or create a hazardous condition, the Contractor shall provide continuous service. Particular care and planning must be arranged to provide continuous service of existing services or temporary services as approved by the utility owner and the Engineer. If the Contractor damages or interrupts an existing utility, the Contractor shall immediately make arrangements to provide temporary service to the parties affected and shall repair said utility as required by the Engineer at no cost to the Owner. If the Contractor fails to make immediate repairs and provide service as required, the Owner may have said work performed by others and deduct the cost of said work from payment to the Contractor.

11.10 The Contractor shall exercise care during construction to avoid damaging existing pipes, valves, manholes and other underground and above ground structures. This applies especially to heavy equipment used during street excavations, and base rock operations. The Contractor shall exercise care when operating compaction equipment over pipes. Any piping and structures damaged shall be replaced or repaired by the Contractor at no additional cost to the Owner.

11.11 The Contractor shall take reasonable precautions to protect the work in progress from damage by vandalism, and shall, where reasonably possible, secure the premises where work is being performed from entry by unauthorized persons.

11.12 The Contractor shall be responsible for the protection and perpetuation of existing survey, property, or construction monuments shown on the Drawings, which are marked

or are clearly visible on the ground. The Contractor shall give the Engineer a minimum of 48 hours notice prior to working in the vicinity of any such monument that he may disturb so the Owner can arrange for such monuments to be referenced. When proper notice is provided, the Owner shall have any disturbed monuments restored following construction. Should the Contractor fail to provide adequate notice to the Engineer, he shall be responsible for the expense of having the disturbed monument restored by a qualified surveyor.

12. SUPERVISION BY CONTRACTOR

12.1 The Contractor shall supervise and direct the work. He shall be solely responsible for the means, methods, techniques, quality, sequences and procedures of construction. The Contractor shall employ and maintain on the work site a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

12.2 The Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ on the job any unfit person or anyone not skilled in the work assigned to him. Any employee found to be incompetent, or to act in a disorderly or improper manner, shall be removed from the project.

13. CHANGES IN THE WORK

13.1 The Owner may at any time, as the need arises, order changes within the scope of the work without invalidating the Agreement. The Engineer also may, at any time, by issuing a field order, make changes in the details of the work.

13.2 If the Contractor claims an increase in the contract price or an increase in the contract time, or both, because of a change in the work ordered pursuant to Section 13.1 then within five (5) days of receipt of the field order, the Contractor shall give the Engineer written notice thereof, which notice shall include the amount of the increase in the contract time or price, or both, claimed by the Contractor.

13.3 No changes in the work shall be executed or performed by the Contractor, except those undertaken pursuant to Section 11.3, for which the Contractor claims a price adjustment or extension of time without first having executed and agreed to a change order. In the event there is a dispute as to the change in the contract price or contract time, or both, then the Owner may authorize, in writing, the Contractor to execute said

changes on an actual cost basis with the price determined in accordance with Sections 14.2.c and 14.3. Should the Contractor proceed to execute said changes without said written consent, said execution shall constitute acceptance of the change in price or time last offered by the Owner, or in the event the Owner has offered no change, shall constitute waiver of any claim for adjustment of the contract price or contract time on account of said change.

13.4 Whether an adjustment in price or time, due to a change in the work, including any claim for delay, is due the Contractor shall be determined in accordance with Section 14.

14. CHANGES IN CONTRACT PRICE AND TIME

14.1 No change in the contract price or contract time, including any claim for delay, shall be due as a consequence of a change in the work unless:

(a) Timely written notice of claim thereof has been given pursuant to Section 13.2, and

(b) The changes have not been executed or performed or written consent obtained from the Owner to execute the same, as required by Section 13.3.

14.2 The contract price and contract time shall be changed only by written change order. Change orders must be approved by the Contractor and the Owner and recommended by the Engineer. The adjustment in price, whether an increase or decrease in the contract price, as a consequence of a change in the work or any other basis maintainable under the Contract Documents, shall be determined by the following methods in the order of precedence listed below:

(a) Unit price previously approved.

(b) An agreed lump sum.

(c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon, but not to exceed a total of fifteen (15) percent of the actual cost of the work, to cover the cost of general overhead and profit when labor and materials are involved and ten (10) percent when materials only are involved. Generally, direct overhead includes direct on-the-job supervision and management and general overhead includes that supervision and management not directly on the job site.

14.3 When an actual cost basis is used to pay for extra work, the Contractor shall

maintain his records in such a manner as to provide a clear distinction between the direct costs of extra work paid for on an actual basis and the costs of other operations. The Contractor shall furnish the Engineer report sheets in duplicate of each day's extra work no later than the next working day following the performance of said work. The daily report sheets shall provide names and classifications of workmen, the hourly rate of pay and hours worked, and also the size, type, and identification number of equipment and hours operated.

14.3.1 Materials charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily report sheets, or if not available, they shall be submitted with subsequent daily report sheets. Should said vendor's invoices not be submitted within 15 days after acceptance of the work, the Owner reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available in the quantities concerned delivered to the location of the work. Said daily report sheets shall be signed by the Contractor or his authorized agent. The equipment rental rate shall be the same as the current rate as published by the A.G.C. for the area in which work is performed.

14.3.2 The Engineer will compare his records with the daily report sheets furnished by the Contractor, make any necessary adjustments, and compile the costs of work paid for on an actual cost basis on daily extra work report forms. When on an actual cost basis, these daily extra work reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed.

14.4 In the event the quantity of the work is increased or decreased for which unit prices have been established in the bid, the total amount of work actually performed shall be paid for according to the bid unit prices. It shall be understood that, due to the very nature of particular projects such as wells and utilities, the quantities of bid items may vary substantially from those shown in the Bid Schedule. An instruction from the Owner to the Contractor as to the amount of work, whether an increase or decrease, to be performed where said work has been bid on a unit price basis (e.g., the depth of a well where drilling was bid on a per foot basis or the length of water lines where construction was bid on a per foot basis) shall not be deemed a change in the scope of the work.

14.5 All claims for adjustment in the contract price or contract time or both, due to delay caused by an order changing the work, shall be determined at the same time and pursuant to the same procedure for adjustment in price and time due to a change in the work. In the event of a delay caused by a dispute in a price or time adjustment for a change in the work, the costs of the delay may only be recovered by the Contractor if the price adjustment as finally determined is closer in dollar value to the amount claimed, by the Contractor, than to the figure offered by Owner. In no event shall any compensation for delay be paid for costs which could reasonably have been avoided by the Contractor.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the work are essential conditions of the Contract Documents and the work embraced shall be commenced within the time provided in the notice to proceed. It is expressly understood and agreed, by and between the Contractor and the Owner, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

15.2 The Contractor will proceed with the work at such rate of progress to insure that the construction work is completed and a bona fide written notice of completion is issued by the Contractor within the contract time and to further assure full completion within thirty days after receipt of a written report from the Engineer specifying any particulars in which the work is unsatisfactory and must be corrected. Completion of the work shall be defined as the date the Engineer issues a certificate stating that the work has been accepted by him and the Owner under the conditions of the Contract Documents. This certificate shall not be issued until the conditions of Section 19.8 are satisfied.

15.3 It is agreed by the parties of the Contract that in case all work called for under the contract in all parts and requirements is not completed within the contract time specified in the contract, damage will be sustained by the Owner; and it is further agreed that it is, and will be, impractical and extremely difficult to ascertain and determine the actual damage which the Owner will sustain by reason of such delay; for example, inconvenience to Owner because the project is not complete, interest cost of capital funds expended on project, lost revenue to Owner, negative public opinion, etc. It is, therefore, agreed that if the Contractor fails to complete the construction work and issue a bonafide written notice of completion to Owner within the contract time, or extension of time granted by the Owner or fails to secure full completion of the job within 30 days after a written report from the Engineer of particulars in which the work is defective or must be corrected, then the Contractor shall pay the Owner, the amount of liquidated damages as specified in the bid for each calendar day the Contractor shall be in default after the time stipulated in the Contract Documents. It shall be clearly understood that construction shall be completed within the contract time and all corrective work and paperwork completed within the 30-day period. Liquidated damages may be assessed if either or both conditions are not satisfied by the Contractor. Liquidated damages may be assessed and collected monthly by the Owner as they are incurred by deducting the amount of liquidated damages from the amount due the Contractor for his work to date as shown on the Contractor's monthly payment estimate. The Contractor and/or its surety shall be responsible for all liquidated damages, even those that exceed the amount owed the Contractor. Any adjustment in the total amount of liquidated damages due to a granting of an extension of time will be made as the extensions of time are granted.

15.4 It is further agreed that, in case the work called for under the contract is not completed in all parts and requirements within the contract time specified in the contract,

the Owner, as an alternative to assessing liquidated damages, shall have the option to increase the contract time or not, as the Owner decides will best serve its interest. If the Owner decides to increase said contract time, the Owner shall further have the right to charge the Contractor, his heirs, assigns, or sureties, and to deduct from the final payment for the work, all or any part, as the Owner may deem proper, of the actual cost of engineering, lost revenue, interest cost, inspection, superintendence, Owner's direct cost, and other overhead expenses which are directly chargeable to the contract and which accrue during the period of such extension, except that the cost of final surveys and preparation of the final estimate shall not be included in such charges.

15.5 The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following, and the Contractor has promptly given written notice of such delay to the Owner or Engineer.

(a) To any preference, priority or allocation order duly issued by the Owner.

(b) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor including, but not restricted to, acts of God or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather other than normal weather.

(c) To any delays of subcontractors occasioned by any of the causes specified in this Article 15.5.

15.6 Permitting the Contractor to continue and finish the work or any part thereof after the contract time or adjusted contract time, as pertinent, has expired shall in no way be construed as a waiver on the part of the Owner or any of his rights under the contract.

15.7 If the Contractor requests a time extension due to abnormal and unforeseeable weather, but desires to continue with certain portions of the work during the period of delay, he will be allowed to do so only if he agrees in writing to pay all engineering and project observation and any other direct costs that may be necessary due to this work. If he refuses to pay such costs, work done by him during this period will not be reviewed, nor will it be accepted and paid for by the Owner. Also, prior to commencing work after any such delay, the Contractor shall give the Engineer three days written notice of his intent to commence work.

16. CORRECTION OF WORK

16.1 The Contractor shall promptly remove from the premises or correct all work rejected by the Engineer for failure to comply with the Contract Documents, whether

incorporated into the construction or not, and the Contractor shall promptly replace, correct and re-execute the work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

16.2 All removal, correction and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work within ten (10) days after receipt of written notice, the Owner may perform such removal, correction and replacement work at the expense of the Contractor.

17. SUBSURFACE CONDITIONS/UNDERGROUND UTILITIES

17.1 The Contractor shall, within five (5) days after discovery, and before such conditions are disturbed, except in the event of an emergency, notify the Owner and Engineer by written notice of:

(a) Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or

(b) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

17.2 For work involving construction of wells, the Contractor shall assume all risks associated with subsurface conditions. There shall be no increase in the contract price due to changes in the subsurface conditions or degree of difficulty in the construction whether anticipated or not.

17.3 The Owner shall promptly investigate the changed conditions, covered under Section 17.1 and, if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the work, an equitable adjustment shall be made and the Contract Documents shall be modified by a change order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required written notice, and a change order approved.

17.4 Known utilities and structures expected to be adjacent to or encountered in the work may be shown on the Drawings. It is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by either the Owner or the Engineer for their accuracy. The Contractor shall work very closely with the owner of any utilities or structures affected by the work, and shall make such investigations as may be required (including potholing if necessary) to avoid any damage to existing utilities or structures. It shall be the

responsibility of the Contractor to locate or have located all existing utilities or structures. The Contractor shall pay all cost and make all repairs as required by the Engineer or owner of the utilities or structures for damages to said utilities and structures caused by the Contractor in his performance of the work.

17.5 The Contractor shall support and otherwise protect all pipes, conduits, cables, poles, or other existing services where they cross the trench or are otherwise undermined or affected by his work. The Contractor shall restore the bedding of an undermined existing utility using compacted select backfill.

17.6 If a conflict develops between the design line and depth of a new utility line and an existing utility, the Engineer may adjust the design grade and alignment of the line or have the existing utility relocated. The existing utility may be relocated by the utility company or agency, by a designated representative of the utility company or agency, or by the Contractor upon the approval of the utility company or agency and the Engineer. The Contractor shall perform all relocation work, required of him by the Owner. If the Contractor performs the relocation work, a change order shall be negotiated and approved prior to any actual work.

17.7 Soils data and groundwater conditions when shown on the Drawings are provided solely for the Contractor's information. Such data is not guaranteed as to accuracy or completeness with respect to the actual subsurface conditions. Information shown shall not relieve the Contractor from making such additional investigations as he may elect to acquaint himself with actual conditions to be encountered in executing the work. Groundwater conditions in particular are subject to change and may be substantially different than those shown on the Drawings.

18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 Suspension of Work. The Owner may suspend the work or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the Contractor, by written notice to the Contractor and the Engineer which notice shall fix the date on which work shall be resumed. The Contractor will resume that work on the date so fixed. The Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension.

18.2 Termination for Default.

(a) If the Contractor is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws; or

(b) If the Contractor repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment; or

(c) If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, materials or equipment; or

(d) If the Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work; or

(e) If the Contractor disregards the authority of the Engineer, or

(f) If the Contractor otherwise violates any provision of the Contract Documents.

The Owner may, without prejudice to any other right or remedy and after giving the Contractor and his surety a minimum of ten (10) days from delivery of a written notice, terminate the services of the Contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor or his surety will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a change order.

18.2.1 Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any other rights and remedies of the Owner against the Contractor provided by law or under this contract then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from liability or compliance with the Contract Documents.

18.3 Termination by Contractor. If through no act or fault of the Contractor, the work is suspended for a period of more than ninety (90) days by the Owner or under an order of Court or other public authority, or the Engineer fails to act on any requests for payment within forty five (45) days after it is submitted, or the Owner fails to pay the Contractor substantially the sum approved by the Engineer or ordered by arbitrators within forty-five (45) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a written notice to the Owner and the Engineer, terminate the contract and recover from the Owner payment at contract price for all work executed and all extraordinary expense sustained in connection with the termination of the contract. In addition and in lieu of terminating the contract, if the Engineer has failed to act on a request for payment or if the Owner has failed to make any payment as aforesaid, the Contractor may, upon ten (10) days written notice to the Owner and the Engineer, stop the work until he has been paid all amounts due, in which event and upon resumption of

work, change orders shall be issued for adjusting the contract price or extending the contract time or both to compensate for the costs and delays attributable to the stoppage of the work.

18.4 Delay for Failure to Act. If the performance of all or any portion of the work is suspended, delayed, or interrupted as a result of a failure of the Owner or Engineer to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the contract price or an extension of the contract time, or both, shall be made by change order to compensate the Contractor for the costs and delays necessarily caused by the failure of the Owner or Engineer.

18.5 Termination for Delay. If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the Owner may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event, the Owner may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the Owner resulting from his refusal or failure to complete the work within the specified time.

18.5.1 If fixed and agreed liquidated damages are provided for in the Contract Documents, and if Owner so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Owner in completing the work, including engineering, legal, and construction costs etc.

18.5.2 If fixed and agreed liquidated damages are provided for in the Contract Documents and if the Owner does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed and accepted.

18.5.3 The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(a) The delay in the completion of the work is due to unforeseeable cause beyond the control and without the fault or negligence of the Contractor including but not restricted to, acts of God, acts of the public enemy, act of the Owner in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Owner, fires, floods epidemics, quarantine restrictions, strikes, freight embargoes, unusual severe weather other than normal weather, or delays of subcontractors

suppliers at any tier arising from such causes listed above that are beyond the control and without the fault or negligence of both the Contractor and such subcontractors or suppliers; AND

(b) The Contractor, within 15 days from the beginning of any such delay (unless the Owner grants a further period of time before the date of final payment under the contract), notifies the Owner and the Engineer in writing of the causes of delay. The Engineer shall ascertain the facts and the extent of the delay and recommend extension of the time for completing the work when, in his judgment, the findings of fact justify such an extension.

18.5.4 If, after written notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for the termination for convenience of the Owner, be the same as if the notice of termination had been issued pursuant to such clause. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the Owner, the contract shall be equitably adjusted to compensate for such termination and the contract modified accordingly.

18.5.5 Where the Contractor's services have been terminated under this Article 18.5, said termination shall not affect any other rights and remedies of the Owner against the Contractor provided by law or under this Contract. Any retention or payment of monies by the Owner to the Contractor will not release the Contractor from liability or compliance with the Contract Documents.

18.6 Termination for Convenience. The performance of work under this contract may be terminated by the Owner in accordance with this clause in whole, or from time to time in part, whenever the Owner shall determine that such termination is in the best interest of the Owner. Any such termination shall be effected by delivery to the Contractor of a written notice of termination specifying the extent to which performance of work under the contract is terminated, and the date upon which such termination becomes effective.

18.6.1 After receipt of a notice of termination, and except as otherwise directed by the Owner, the Contractor shall:

(a) Stop work under the contract on the date and to the extent specified in the notice of termination.

(b) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the contract as is not terminated.

(c) Terminate all orders and subcontracts to the extent that they relate to the

performance of work terminated by the notice of termination.

(d) Assign to the Owner, in the manner, at the times, and to the extent directe by the Owner, all of the right, title, and interest of the Contractor under t orders and subcontracts so terminated. In which case the Owner sh have the right, in its discretion, to settle or pay any or all claims arising o of the termination of such orders and subcontracts.

(e) Settle all outstanding liabilities and all claims arising out of such terminati of orders and subcontracts with the approval or ratification of the Owner the extent he may require, which approval or ratification shall be final for the purposes of this clause.

(f) Transfer title to the Owner, and deliver in the manner, at the times, and the extent, if any, directed by the Owner, the fabricated or unfabricate parts, work in process, completed work, supplies, and other materi produced as a part of, or acquired in connection with the performance o the work terminated by the notice of termination, and the completed partially completed plans, drawings, information, and other property whic if the contract had been completed, would have been required to b furnished to the Owner.

(g) Use his best efforts to sell, in the manner, at the times, to the extent, an at the price or prices directed or authorized by the Owner, any property o the types referred to in (f) above. Provided, however, that the Contracto shall not be required to extend credit to any purchaser, and may acquir any such property under the conditions prescribed and at a price or price approved by the Owner. And provided further, that the proceeds of an such transfer of disposition shall be applied in reduction of any payment to be made by the Owner to the Contractor under this contract or sha otherwise be credited to the price or cost of the work covered by thi contract or paid in such other manner as the Owner may direct,

(h) Complete performance of such part of the work as shall not have bee terminated by the notice of termination.

(i) Take such action as may be necessary, or as the Owner may direct, for th protection and preservation of the property related to this contract which in the possession of the Contractor and in which the Owner has or ma acquire an interest.

.18.6.2 After receipt of a notice of termination, the Contractor shall submit to the OWNE his termination claim, in the form and with the certification prescribed by the OWNE Such claim shall be submitted promptly but not later than 90 days from the effective da of termination, unless one or more extensions in writing are granted by the Owner upo

request of the Contractor made in writing within such 90-day period or authorized extension thereof. However, if the Owner determines that the facts justify such action, the Owner may receive and act upon any such termination claim at any time after such 90-day period or extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Owner may determine on the basis of information available to the Owner the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.

18.6.3 Subject to the provisions of paragraph 18.6.2, the Contractor and the Owner may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this clause, which amount or amounts may include payment at contract price for all work done and extraordinary expense sustained in connection with the termination of the contract. The contract Documents shall be amended accordingly and the Contractor shall be paid the agreed amount. Nothing in paragraph 18.6.4 of this clause, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the Owner to agree upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this paragraph 18.6.3.

18.6.4 In the event of the failure of the Contractor and the Owner to agree as provided in paragraph 18.6.3, upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, the Owner shall determine, on the basis of information available to the Owner, the amount, if any, due to the Contractor by reason of the termination and shall pay to the Contractor the amounts determined as follows:

(a) With respect to all contract work performed prior to the effective date of the notice of termination, the total (without duplication of any items) of:

1. The contract price of such work;

2. The cost of settling and paying claims arising out of the termination under subcontracts or orders as provided in paragraph 18.6.1(e) above, including the amounts paid or payable on accounts of supplies delivered or services furnished by the subcontractor prior to the effective date of the notice of termination of work under this contract.

(b) The reasonable cost of the preservation and protection of property incurred pursuant to paragraph 18.6.1(i); and any other reasonable cost incidental to termination of work under this contract.

(c) The Contractor's reasonable administrative costs sustained in connection with the termination of the contract.

18.6.5 Except for normal spoilage, and except to the extent that the Owner shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under paragraph 18.6.4(a), the fair value, as determined by the Owner, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Owner, or to a buyer pursuant to paragraph 18.6.1(g).

18.6.6 In arriving at the amount due the Contractor under this clause, there shall be deducted all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this contract, any claim which the Owner may have against the Contractor in connection with this contract, and the agreed price for, or the proceeds of sale of, any materials, supplies, or other things kept by the Contractor or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the Owner.

18.6.7 If the termination hereunder be partial, prior to the settlement of the terminated portion of this contract, the Contractor may file with the Owner a request in writing for an equitable adjustment of the price or prices specified in the contract relating to the continued portion of the contract (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices; however, nothing contained herein shall limit the right of the Owner and the Contractor to agree upon the amount or amounts to be paid to the Contractor for the completion of the continued portion of the contract when said contract does not contain an established contract price for such continued portion.

19. PAYMENT TO CONTRACTOR AND COMPLETION

19.1 Progress payments for completed work and materials on hand will be based upon monthly partial payment estimates prepared by the Contractor. A partial payment estimate cutoff date will be established at the preconstruction conference. Following the partial payment estimate cutoff date (but not more than once a month), the Contractor shall submit to the Engineer a completed partial payment estimate signed by the Contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the Owner, as will establish the Owner's title to the material and equipment and protect the Owner's interest therein, including applicable insurance.

19.1.1 The Engineer will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his recommendations for approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reasons for refusing to recommend payment

In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate to the Engineer.

19.1.2 The Owner will, within thirty (30) days after receipt of a partial payment estimate from the Engineer, approve the partial payment estimate, or indicate in writing to the Engineer and the Contractor, reasons for not approving the partial payment estimate. The Owner will make a progress payment based on the partial payment estimate within the said 30-day period or within 20 days of receipt of grant funding reimbursement whichever is later.

19.1.3 The Owner shall retain five (5) percent of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents. Such retainage shall be held by the Owner in accordance with the State laws and regulations.

19.1.4 The progress payments may be withheld or reduced if, in the Owner's opinion, the Contractor is not diligently or efficiently endeavoring to comply with the intent of the contract, or if the Contractor fails to pay his labor and material bills as they become due.

19.1.5 If the Owner fails to make a progress payment when due as specified in paragraph 19.1.2, in addition to other remedies available to the Contractor, there shall be added to each such progress payment interest at the rate specified by the State law at the locality of the work. Said interest shall commence on the first day after said payment is due.

19.2 Progress payments may be made for work partially complete when work is progressing in an acceptable manner. The approval of partial payment estimates on completed work units or partially completed work does not constitute an acceptance of the work, approval of methods utilized in performance of the work, or approval of materials incorporated in the work by the Owner or Engineer. When work is paid for on a per unit basis and a substantial number of units could be partially complete (such as pipeline work), payment will be made on a partial payment request at full unit prices for the number of units which best represent the dollars earned, on all units on which work has been performed, giving due consideration to the cost of completing the work. For example, if water lines were bid at the rate of $10.00 per lineal foot, and 1,000 feet of water lines had been installed but work was only 75 percent complete, i.e., surface restoration and testing incomplete, the partial payment estimate would show 750 feet of pipe at full unit price of $10.00 per foot (75% x 1,000 feet = 750 feet). This procedure in preparing partial payment estimates will be utilized to simplify bookkeeping and does not imply the work listed in the partial payment estimates has been completed or accepted. Approval of partial payment estimates for work partially complete will be subject to any limiting conditions outlined in other provisions of the Contract Documents.

19.3 Prior to completion, the Owner, with the recommendation of the Engineer and with the approval of the Contractor, may use any completed or substantially completed portions of the work. Such use shall not constitute an acceptance of such portions of the

work and shall not cancel or lapse any insurance provided by the Contractor for this portion of the work.

19.4 The Owner shall have the right to enter the premises for the purpose of doing work not covered by the Contract Documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the work, or the restoration of any damaged work except such as may be caused by agents or employees of the Owner.

19.5 Upon written notice from the Contractor that the work is complete, the Engineer shall determine whether or not the work is sufficiently complete to warrant a final project review. If the work is not complete, the Contractor shall complete the work prior to requesting final project review. If the work is complete and no items are left undone to the best knowledge of the Engineer and the Contractor, the Engineer shall, within ten (10) days of receipt of said notice, make a final project review with the Owner and the Contractor and will notify the Contractor, in writing, of any particulars in which this review reveals that the work is defective. The Contractor shall, within thirty (30) days of receipt of said written notification from the Engineer, make such corrections as are necessary to remedy such defects. The completion of items identified in the final project review shall not relieve the Contractor from completing or correcting work which is subsequently found to be incomplete or defective.

19.5.1 After the Contractor has completed any such corrections to the satisfaction of the Engineer and the Owner and delivered all operations and maintenance manuals, guarantees, bonds, certificates of review and other documents, all as required by the Contract Documents, he may make applications for final payment following the procedures in Section 19 of these General Conditions. Upon receipt, completion, and approval of the above listed items, as well as approval by grant funding and all applicable local, state, and federal agencies as required by law, regulations, and rules, the Engineer will issue a notice to the Owner stating that to the Engineer's knowledge, information, and belief, the work has been completed by the Contractor and that the Engineer recommends acceptance by the Owner.

19.5.2 It is the intent that written notice from the Contractor stating the work is complete shall be issued within the construction contract time and that the Contractor will have an additional thirty days from the date the Contractor receives a written final project review report from the Engineer, to complete the final paperwork, obtain approvals from applicable local, State, and Federal agencies, and submit a final payment request.

19.5.3 The entire balance found to be due the Contractor, including the retainage percentages, but except such sums as may be lawfully retained by the Owner, shall be due the Contractor within thirty (30) days of completion and acceptance of the work, and after approval by grant funding agencies, if any, and after approval of all applicable state and federal agencies as required by law, regulations and rules.

19.6 The Contractor will indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his surety or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor for any such payments made in good faith.

19.7 Should the Contractor fail to comply with any requirements of the Contract Documents after being given written notice of his noncompliance, the Owner may deduct $100.00 per day for each day of noncompliance per notice from progress payments. These deductions will be held by the Owner until approval of final payment at which time these funds will be released to the Contractor. No interest will be paid to the Contractor for withholding funds under this provision. This payment incentive is provided to encourage the Contractor to comply with the day-to-day requirements of the Contract Documents. Examples of concerns include maintenance of trenches across streets and highways, signing, cleanup, and reasonable restoration, etc. Enforcement of this provision by the Owner, or failure to enforce this provision, does not release the Contractor from his obligation to satisfy all conditions of the Contract Documents nor does it relieve the Contractor of any liability as a result of his failure to satisfy the requirements of the Contract Documents. This provision shall be enforceable in addition to any other provisions of the Contract Documents.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner and its agents of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and its agents and others relating to or arising out of this work. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the Contract Documents or the Performance and Payment Bonds.

21. INSURANCE

21.1 The Contractor shall purchase at his own expense, and maintain during th contract period, such insurance as necessary to provide financial protection agains claims which may arise out of or result from the Contractor's execution of the contrac whether such execution be by himself or by any subcontractor or by anyone directly o indirectly employed by any of them, or by anyone for whose acts any of them may b liable. Such insurance is to include but not be limited to that hereinafter specified. A such insurance shall remain in effect until final payment and acceptance of the work b the Owner and at all times thereafter when Contractor may be correcting, removing o replacing defective work. Owner and Contractor intend that any policies provided response to this Section 21 shall protect all of the parties insured and provide primar coverage for all losses and damages caused by the perils covered thereby. Accordingly all such policies shall contain provisions to the effect that in the event of payment of an loss or damage the insurer will have no rights of recovery against any of the partie named as insureds or additional insureds. If the Contractor does not provide coverag for subcontractor(s), then the subcontractor(s) shall also provide the coverage an certifications as specified herein. Subcontractor(s) certification shall be given to th Contractor and shall be made available to the Owner when requested by the Owner.

21.2 The Contractor shall procure and maintain Worker's Compensation and Employer Liability insurance as designated below:

21.2.1 Coverage for injuries that are compensable under Worker's Compensation Ac and for diseases under Occupational Disease Acts and/or against liability imposed by la for injuries to employees that are not compensable, including any class of employee engaged in hazardous work under this contract not otherwise protected.

21.2.2 Worker's Compensation insurance shall meet all requirements of the State which work is being performed.

21.3 The Contractor shall procure and maintain property insurance as designate below:

21.3.1 Coverage for the loss of, or damages to, property constructed under the projec During construction, the property shall be protected with "All Risk" Builder's Ris insurance, including flood insurance, to the extent of the full replacement value at risk any time.

21.3.2 The property insurance policy shall include as a named insured or additiona insureds the Owner, the Contractor, and the Engineer as their interests may appear.

21.3.3 The foregoing provisions shall in no way release the Contractor or Contractor surety from obligations under the Contract Documents to fully complete the project.

21.4 Contractor shall purchase and maintain such comprehensive form general liability insurance including underground, explosion, and collapse hazard and other insurance as is appropriate for the work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, by any subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the work, or by anyone for whose acts any of them may be liable:

21.4.1 Claims under Workers' or Workmen's Compensation, disability benefits, and other similar employee benefit acts.

21.4.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees.

21.4.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.

21.4.4 Claims for damages insured by personal injury liability coverage which are sustained by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or by any other person for any other reason.

21.4.5 Claims for damages, other than to the work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

21.4.6 Claims arising out of operation of laws or regulations for damages because of bodily injury or death of any person or for damage to property.

21.4.7 Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

21.4.8 The insurance required by paragraph 21.4 shall include the specific coverages and be written for not less than the limits of $1,500,000 or required by law, whichever is greater. The comprehensive form general liability insurance shall include completed operations insurance. The comprehensive general liability insurance will include contractual liability insurance applicable to Contractor's obligations under Section 24. The comprehensive form general liability insurance policy shall include as a named insured or additional insureds the Owner, the Contractor, and the Engineer as their interest may appear.

21.5 The Contractor shall procure and maintain business automobile liability insurance as designated below:

21.5.1 Coverage for bodily injury and property damage arising out of the ownership,

maintenance or use of any automobile, including owned, hired, and non-owned automobiles. Coverage is also to be provided for other liabilities specified under statutory requirements.

21.5.2 Business automobile liability insurance limits shall be written for the limits of 500,000 combined single limit.

21.6 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the project. These certificates are to be completed in a manner so as to verify compliance with the insurance requirements delineated in this document. In addition, they shall contain a provision that coverages afforded under the policies will not be terminated unless at least thirty (30) days prior written notice by Certified Mail has been given to the owner. In addition to certificates of insurance provided by insurance companies, the Contractor and subcontractor(s) and their insurance agent shall furnish a completed and executed copy(s) of the Certificate of Insurance included in these Contract Documents. The Contractor and his insurance agent shall be fully responsible for providing the insurance coverage called for by the Contract Documents. Any review of the insurance certificates by the Owner or his agent shall not relieve the Contractor and his insurance agent from responsibility should proper coverage not be provided.

21.7 When the work is to be accomplished within the right-of-way of the State Highway or Transportation Department or on lands over which they have direct or indirect control, the Contractor's liability insurance policy shall contain endorsements as required by the respective agency.

21.8 When the work is to be accomplished within the right-of-way of any railroad facility or on lands over which they have direct or indirect control, the Contractor shall provide Railroad Protective liability insurance in accordance with the railroad requirements as stated in construction permits or otherwise required by railroad company.

22. CONTRACT SECURITY

22.1 The Contractor shall within ten (10) days after the receipt of the Notice of Award furnish the Owner with a Performance Bond and a Payment Bond in penal sums equal to the amount of the contract price and change orders, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the work provided by the Contract Documents. Such bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these bonds shall be borne by the Contractor.

22.2 If at any time a surety on any such bond is declared bankrupt or loses its right to do business in the state in which the work is to be performed or is removed from the list of surety companies accepted on federal bonds, Contractor shall within ten (10) days after notice from the Owner to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the Owner. The Performance Bond shall remain in full force and effect through the guarantee period.

22.3 At the time of posting the bonds required by 22.1, Contractor shall provide information as to the surety's rating according to Best's Rating Service and the surety shall have a B+ rating or better.

23. ASSIGNMENTS

23.1 Neither the Contractor nor the Owner shall sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

24. INDEMNIFICATION

24.1 To the fullest extent permitted by laws and regulations, the Contractor shall indemnify and hold harmless and defend at the Contractor's expense, including attorney's fees, the Owner and the Engineer and their officers, agents, and employees from and against all claims, liabilities, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work. Provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and is caused in whole or in part by any alleged negligent act or omission of the Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by law and regulations regardless of the negligence of any such party. Indemnification shall also include, but not be limited, to:

(a) Liability or claims resulting directly or indirectly from the alleged negligence or carelessness of the Contractor or his agents in the performance of the

work, or in guarding or maintaining the same, or from any impro materials implements, or appliances used in its construction, or by or account of any act or omission of the Contractor or his agents;

(b) Liability or claims arising directly or indirectly from or based on the violat of any law, ordinance, regulation, order, or decree, whether by Contractor or his agents;

(c) Liability or claims arising directly or indirectly from the use or manufact by the Contractor, his agents, or the Owner in the performance of t contract of any copyrighted or uncopyrighted composition, secret proce patented or unpatented invention, article, or appliance, unless otherw specifically stipulated in this contract;

(d) Liability or claims arising directly or indirectly from the breach of warranties, whether express or implied, made to the Owner or any ot parties by the Contractor or his agents;

(e) Liabilities or claims arising directly or indirectly from the willful miscond of the Contractor or his agents; and

(f) Liabilities or claims arising directly or indirectly from any breach of obligations assumed herein by the Contractor.

24.2 In any and all claims against the Owner or Engineer or any of their consultan agents, or employees by any employee of the Contractor, any subcontractor, any pers or organization directly or indirectly employed by any of them to perform or furnish a of the work or anyone for whose acts any of them may be liable, the indemnificat obligation under Section 24 shall not be limited in any way by any limitation on t amount or type of damages, compensation or benefits payable by or for the Contrac or any such subcontractor or other person or organization under Workers' or Workme Compensation Acts, disability benefit acts or other employee benefit acts.

24.3 The Contractor shall not be required to indemnify the Engineer, Enginee consultants, agents or employees for any claim or liability arising out of the Engineer's the Engineer's consultants preparations or approval of maps, drawings, opinions, repo surveys, change orders, designs, or specifications.

25. SEPARATE CONTRACTS

25.1 The Owner reserves the right to let other contracts in connection with this proje The Owner additionally may perform additional work related to the project by himself. T Contractor will afford the other contractors who are parties to such contracts (or

Owner, if he is performing the additional work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his work with theirs. If the proper execution or results of any part of the Contractor's work depends upon the work of any other Contractor or Owner, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

25.2 If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the execution of the contract, written notice thereof shall be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the Owner or others involves him in additional expense or entitles him to an extension of the contract time, he may make a claim therefor as provided in Sections 14 and 15.

26. SUBCONTRACTING

26.1 The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

26.2 The Contractor shall not award work to subcontractor(s), in excess of fifty (50%) percent of the contract price, without prior written approval of the Owner.

26.3 The Contractor shall be fully responsible to the Owner and Engineer for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the work under a direct or indirect contract with the Contractor just as the Contractor is responsible for the Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between the Owner or the Engineer and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of the Owner or the Engineer and any such subcontractor, supplier or other person or organization except as may otherwise be required by laws and regulations.

26.4 All work performed for the Contractor by a subcontractor will be pursuant to an appropriate agreement between the Contractor and the subcontractor which specifically binds the subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Owner and the Engineer. The Agreement shall give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

27. ENGINEER'S AUTHORITY

27.1 The Engineer shall act as the Owner's representative during the constructi period. He shall decide questions which may arise as to quality and acceptability materials furnished and work performed. He shall interpret the intent of the Contr Documents in a fair and unbiased manner. The Engineer will make visits to the site a determine if the work is proceeding in accordance with the Contract Documents.

27.2 The Contractor will be held strictly to the intent of the Contract Documents regard to the quality of materials, workmanship, and execution of the work. Review materials may be made at the factory or fabrication plant of the source of material supp

27.3 The Engineer will not be responsible for the construction means, contr techniques, sequences, procedures, or construction safety.

27.4 The Engineer shall promptly make decisions relative to interpretation of Contract Documents.

27.5 The Engineer may provide a full time resident Project Representative to monitor progress of the work. The Engineer, however, does not guarantee the performanc the Contractor by the Engineer's providing of such Project Representative. Engineer's undertaking hereunder shall not relieve the Contractor of his obligation perform the work in conformity with the Contract Documents and in a workman manner; shall not make the Engineer an insurer of the Contractor's performance; s not impose upon the Engineer any obligations to see that the work is performed in a s manner; and shall not relieve the Contractor from his responsibility to adequa supervise the work.

28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of Notice to Proceed, the Owner shall obtain all land right-of-way easements determined by the Owner to be necessary for carrying out for the completion of the work to be performed pursuant to the Contract Docume unless otherwise mutually agreed. Copies of the easements, rights-of-ways, deeds, will be available at the Owner's office for examination, and review by the Contracto

28.2 The Owner shall provide to the Contractor information which delineates describes the lands owned and rights-of-way acquired.

28.3 The Contractor shall provide at his own expense and without liability to the O any additional land, construction easements, access thereto, etc., that the Contractor desire during the construction phase. All such agreements, including restoration

damages, shall be between the Contractor and affected landowners. The Owner will not be a party to any such agreement.

29. GUARANTEE

29.1 The Contractor shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year, unless provided otherwise in the Technical Specifications, from the date of completion. The Contractor warrants and guarantees for a period of one (1) year from the date of completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event the Contractor should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

29.2 If any corrections of the work are performed during the one-year guarantee period in accordance with Section 29.1 which, in the judgment of the Engineer, requires monitoring by a Project Representative, the services of such Project Representative and the Engineer shall be paid for by the Contractor. The amount of such payment shall be consistent with the amount of service provided and compensation shall be in accordance with the payment schedule specified in the Engineering Agreement between the Owner and Engineer for the construction engineering.

29.3 Partial utilization by the Owner or Contractor of individual work elements completed prior to the date of the project completion will not constitute an early guarantee or warranty start date for those items of work. All warranty and guarantees will begin at the date of project completion regardless of when the various work elements were completed and/or placed into service. Any exceptions to this contract provision will be identified specifically in the Special Conditions.

30. LITIGATION/ARBITRATION

30.1 All claims, disputes, and other matters in question arising out of, or relating to, the Contract Documents or the breach thereof, except for claims which have otherwise been waived or by the making and acceptance of final payment as provided by Section 20, shall be decided by a court of competent jurisdiction located in the county in which the work is performed.

30.2 Should the parties mutually agree, the claims, disputes, and other matters question may be decided by arbitration in accordance with the Construction Indus Arbitration Rules of the American Arbitration Association. The award rendered by arbitrators shall be final and judgment may be entered upon it in any court hav jurisdiction thereof.

30.3 In any suit or action between Owner and Contractor, arising out of this contr including any appeals, the prevailing party shall be entitled to his reasonable attorne fees together with costs of suit.

30.4 The Contractor shall carry on the work and adhere to the progress schedule dur all disputes or disagreements with Owner. No work shall be delayed or postpo pending resolution of any disputes or disagreements unless the Contractor and Ow may otherwise agree in writing.

31. TAXES

31.1 The Contractor will pay all sales, consumer, use, and other similar taxes requ by the law of the locality of the project site.

32. WAGE RATES

32.1 On all contracts for the construction, reconstruction, maintenance, or repair of public works, all persons doing or contracting to do the whole or any part of the w contemplated by the contract shall comply with all applicable federal and state laws in employment and payment of labor. The Contractor shall submit all required certifica and affidavits with each request for payment. Payment, progress or otherwise, may withheld unless accompanied by the necessary certificates and affidavits.

SUPPLEMENTAL GENERAL CONDITIONS

SUPPLEMENTAL GENERAL CONDITIONS FOR PUBLIC CONTRACTS IN THE STATE OF OREGON

1. OREGON PUBLIC CONTRACT LAWS

1.1 The Contractor shall comply with the provisions of ORS 279.310 et seq. relating to public contract requirements including the specific provisions contained in these Supplemental General Conditions.

2. PAYMENT OF LABORERS AND MATERIALMEN, CONTRIBUTIONS TO INDUSTRIAL ACCIDENT FUND, LIENS, AND WITHHOLDING TAXES

2.1 Pursuant to ORS 279.312 the Contractor shall:

(a) Make payment promptly, as due, to all persons supplying to such Contractor labor or materials for the prosecution of the work provided for in such contract.

(b) Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the contract.

(c) Not permit any lien or claim to be filed or prosecuted against the Owner, a public agency, on account of any labor or material furnished.

(d) Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

2.2 Pursuant to ORS 279.314, Should the Contractor fail, neglect or refuse to make prompt payment of any claim for labor or services furnished by any person in connection with the contract as said claim becomes due, whether said services and labor be performed for said Contractor or subcontractor, then, in such event, Owner may pay such claim to the person furnishing such labor or services and charge the amount thereof against funds due or to become due the Contractor by reason of the contract, but the payment of any such claim in the manner herein authorized shall not relieve the Contractor or his surety from his or its obligation with respect to any unpaid claims.

3. WAGES

3.1 Prevailing Wage Rates. On all contracts for the construction, reconstruction, maintenance or repair of any public works in the State of Oregon, for which the contract price for the project exceeds $10,000 and the project is not regulated under the Davis-Bacon Act (40 USC 276a), the Contractor shall comply with ORS 279.348 through 279.356. Said Oregon Revised Statutes provide in part for the payment of not less than

prevailing wage rates, including fringe benefits, as determined by the Commissioner of the Bureau of Labor and Industries, and the posting of applicable prevailing wage rates at the jobsite, payroll certification requirements and other provisions. The Contractor shall pay the prevailing wage rates and post the prevailing wage rates as required by the statutes. The Contractor and all Subcontractors shall file certified statements with the Owner stating that they have paid not less than prevailing wages to each employee. The certification must be on forms approved by the Bureau of Labor and Industries.

3.2 Hours of Employment and Overtime Pay. As required by ORS 279.316 and ORS 279.334, the Contractor agrees that he will require no person to work for more than eight hours in any one day or forty (40) hours in any one week, except in case of necessity, emergency, or where the public policy absolutely requires it; provided, however, that in the case of employment for more than eight hours per day or forty hours in any one week, the laborer shall be paid at least time and a half for all overtime in excess of eight hours a day and for work performed on Saturdays and legal holidays (including Sundays).

3.3 Time Limitation on Claim for Overtime. In accordance with ORS 279.336, any worker employed by the Contractor shall be foreclosed from the right to collect for any overtime provided in ORS 279.334 unless a claim for payment is filed with the Contractor within 90 days from completion of the contract, provided the Contractor has posted the required notice of this provision as required by ORS 279.336.

4. WORKER'S COMPENSATION AND PAYMENT FOR MEDICAL CARE

4.1 Worker's Compensation. The Contractor, its subcontractors, if any, and all employers working under this contract are subject employers under Oregon's Worker's Compensation Law and shall comply with ORS 656-017 which requires them to provide Worker's Compensation coverage for all their subject workers. The Contractor agrees that it will comply with the Worker's Compensation Laws of Oregon as set forth in ORS 656.017 et seq. and will insure that all subcontractors comply with ORS 656.017 et seq.

4.2 The Contractor agrees to comply with ORS 279.320, which requires the Contractor to promptly make payment to any person, co-partnership, association, or corporation which furnishes medical, surgical, and hospital or other needed care to Contractor's employees which the Contractor has agreed to pay or has withheld wages for payment of such claims. In accordance with ORS 279.540, any person furnishing or providing such medical, surgical, or hospital care, or the needed care and attention, shall be deemed to have performed labor for the prosecution of the work provided in the contract for the purpose of claims against the Contractor's bonds pursuant to ORS 279.526 TO 279.542.

5. ENVIRONMENTAL AND NATURAL RESOURCES

Pursuant to ORS 279.318, the agencies listed below may have enacted ordinances or regulations which deal with the prevention of environmental pollution or the preservation of natural resources. The Contractor shall comply with any ordinances or

regulations enacted or adopted by these agencies.

Federal Agencies:

Department of Agriculture
- Forest Service
- Soil Conservation

Department of Defense
- Army Corps of Engineers

Environmental Protection Agency

Department of Interior
- Bureau of Sport Fisheries and Wildlife
- Bureau of Outdoor Recreation
- Bureau of Land Management
- Bureau of Indian Affairs
- Bureau of Reclamation

Department of Labor
- Occupational Safety and Health Administration

Department of Transportation
- Coast Guard
- Federal Highway Administration

State Agencies:

Department of Agriculture
Department of Environmental Quality
Department of Fish and Wildlife
Department of Forestry
Department of Geology and Mineral Industries
Department of Human Resources
Land Conservation and Development Commission
Soil and Water Conservation Commission
State Land Board
Water Resources Department

Local Agencies:

City Council
County Court
Rural Fire Protection District
Other Special Districts

6. NON-DISCRIMINATION

- The Contractor shall not discriminate against minorities, women, or emerging small business enterprises in the awarding of subcontracts. The Contractor shall certify as part

of the bid documents accompanying the Bid that the Contractor has not discriminated against minority, women, or emerging small business in obtaining any required subcontract. (ORS 279.111)

7. CONTRACTOR REGISTRATION

The Contractor represents and agrees that he is registered with the Construction Contractors Registration Board in accordance with ORS 701.035 to ORS 701.55. The Contractor shall certify as part of the bid documents accompanying the Bid that the Contractor is registered. Further, the Contractor agrees that all subcontractors shall be registered with the Construction Contractors Registration Board before a subcontractor commences work under the contract.

8. FOREIGN CONTRACTOR

A Foreign Contractor is one who is not domiciled or registered to do business in the State of Oregon (ORS 279.021[2]).

In accordance with ORS 279.021, final payment shall not be made by the Owner to a foreign Contractor until Contractor reports to the Department of Revenue the total contract price, terms of payment, length of contract, or other information the Department of Revenue may require.

9. PERFORMANCE AND PAYMENT BONDS

The bidder being awarded the contract shall deliver a Performance and Payment Bond to the Owner or its representatives no later than the date of the execution of the contract Agreement. The Performance and Payment Bonds shall be issued by a surety duly authorized to do business in the State of Oregon and shall be in the form set forth in these Contract Documents. Claims against the Payment Bond will be in accordance with ORS 279.526, 279.528, and 279.536. In accordance with ORS 279.538, all labor and material liens shall have performance and be superior to all other liens and claims.

10. RESIDENT BIDDER

In accordance with ORS 279.029, each Bid must contain a statement whether the bidder is a Resident Bidder. A Resident Bidder means a bidder that has paid unemployment taxes or income taxes in this State during the twelve calendar months immediately preceding submission of the Bid and has a business address in this State. The Contractor shall certify as part of the bid documents accompanying the Bid, whether or not the Contractor is a Resident Bidder.

11. WITHHOLDING OF RETAINAGE

11.1 The Owner will reserve as retainage from any progress payments on a public contract an amount of five percent of each progress payment as allowed by ORS

279.435. Such retainage shall be retained in accordance with the provisions of ORS 279.420.

12. WORK IN OREGON STATE HIGHWAY RIGHT-OF-WAY

12.1 When the work is to be accomplished within the right-of-way of the Oregon Department of Transportation, Highway Division, or on lands over which they have direct or indirect control, the Contractor's liability insurance policy shall contain by endorsement the following:

(a) "The State of Oregon, the Oregon Transportation Commission, and members thereof, its officers, agents, and employees are hereby included as named insured in the herein numbered policy, except as to claims against the primary named insured for injury to their persons or damage to any of its or their property."

(b) "Cancellation of the endorsement or of the policy to which it is attached may be effected by agreement of the parties hereto, or by the company or the primary named insured giving not less than thirty (30) days notice in writing and by certified mail to the Approach Road and Utility Permits Supervisor, 2950 State Street, Salem, Oregon 97310; Telephone Number: (503) 378-5672, said notice to commence to run from the date it is actually received at said office."

(c) "The limits of liability of the company for the operations of the insured in construction operations on the right-of-way of State highways shall be a follows:"

(Provide coverage as required by the Oregon Transportation Commission.)

(d) "Limits provided herein are the minimum required by the Oregon Transportation Commission and shall in no way be considered a reduction in limits as originally provided in this policy."

PREVAILING WAGE RATES

PREVAILING WAGE RATES

for

Public Works Contracts in Oregon

BOLI

Mary Wendy Roberts
Commissioner
Bureau of Labor and Industries

Effective July 1, 1991

BUREAU OF LABOR AND INDUS
Mary Roberts, Commissioner

July 1, 1991

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective July 1, 1991. These rates have been amended in accordance with ORS 279.348 through ORS 279.365.

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of any publi works. Copies of these rates must be incorporated into all bid specifications when the advertisement for a public works contract is issued. A provision that Prevailing Wage Rates be paid must also be put in the contract. The rates in effect at the tim the bid specifications are first advertised are those that apply for the duration of the project, with one exception; if during the bidding process the Prevailing Wage Rates change, the public contracting agency has the option of amending the bid specifications to reflect such changes.

If you identify any errors in the rates published, please bring them to the attention o the Prevailing Wage Rate specialist in Portland (229-6655). If you have any questio about the manner in which the Prevailing Wage Rates are enforced, contact the Wa and Hour Division in Portland (229-5750).

Mary Wendy Roberts

MARY WENDY ROBERTS
Commissioner
Bureau of Labor and Industries

PORTLAND
1400 SW 5th Avenue
Portland, Oregon 97201

SALEM
3865 Wolverine St. NE; E-1
Salem, Oregon 97310

EUGENE
165 E. 7th Street, Suite 220
Eugene, Oregon 97401

MEDFORD
700 E. Main
Medford, Oregon 97504

COOS BAY
320 Central Ave., Suite 510
Coos Bay, Oregon 97420

BEND
1250 NE 3rd, Suite B105
Bend, Oregon 97701

PENDLETON
700 SE Emigrant, Suite 240
Pendleton, Oregon 97801

AN EQUAL OPPORTUNITY EMPLOYER

ANNOUNCEMENT

The Prevailing Wage Rates contained in this booklet generally reflect those rates determined for Oregon by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act; certain changes have been made to better reflect prevailing practices in Oregon. Pursuant to ORS 279.348 to ORS 279.365, these rates have been adopted for use on public works contracts in Oregon. If you have specific questions regarding how rates are determined or if you would like a copy of this booklet, please contact:

Prevailing Wage Rate Analyst
Bureau of Labor and Industries
P.O. Box 800,
Portland, OR 97207-0800

(503)229-6655

The first copy is free. Additional copies are available for $2.00 each.

GENERAL INFORMATION

Information in this section and in the "Commonly Asked Questions" is meant to provide a convenient reference to Oregon's Prevailing Wage Rate Law. It is in no way a complete statement of the laws and rules.

If you have questions about the enforcement of Prevailing Wage Rates, please contact the Wage and Hour Division. Division offices may be reached at the following phone numbers:

Bend	388-6330
Eugene	686-7623
Medford	776-6201
Pendleton	276-7884
Portland	229-5750
Salem	378-3292

Apprentices and Trainees

Apprentices and trainees may be employed on public works. To qualify as an apprentice or trainee, the worker must be registered in a bonafide apprenticeship or training program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship and Training Agency recognized by BAT. For information call 229-6573. The apprentice or trainee is to receive all fringe benefits and a percentage of the journeyman's wage rate which is listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship or training committee. All other workers must receive rates as published.

Zone Pay

In certain trades, the basic hourly rate of pay progressively increases based upon the distance between the job site and a designated landmark; this is commonly referred to as zone pay. To determine the hourly wage, find the correct zone based on the number of road miles the job site is from the closest designated city (based either on distance from city hall or from geographical center of the city, depending on the trade) and add the amount for that zone to the basic hourly rate. Zone pay, unlike travel pay, is the basic hourly wage upon which overtime is computed.

Bid Specifications

The specifications for every public works contract must include the current Prevailing Wage Rates in effect at the time the specifications are first advertised. A statement incorporating the existing rates by reference will not satisfy this requirement (ORS 279.352).

NOTE: If a public agency fails to include the Prevailing Wage Rates in the contract specifications or fails to include in the contract the provision that Prevailing Wage Rates must be paid, the liability for any unpaid prevailing wages could be exclusively that of the agency.

Fringe Benefits

Payments for fringe benefits are in addition to the basic hourly rate. Fringe benefits means the amount for:

a) medical or hospital care; pensions on retirement or death; compensation for injuries or illness resulting from an occupational activity, or insurance to provide any of the foregoing;
b) unemployment benefits, life insurance, disability and sickness insurance or accident insurance;
c) vacation and holiday pay;
d) defraying costs of apprenticeship or other similar programs; and
e) other such bona fide benefits.

NOTE: For the purpose of Prevailing Wage Rates, fringe benefits do not include any benefits which may be required by federal, state or local law (e.g. Workers' Compensation, Unemployment Insurance, etc.).

Fringe benefits may be paid to the worker in cash or to a third party administering a fringe benefit program. When an hourly rate in excess of the required prevailing base rate is paid, the amount by which the rate is exceeded may be credited toward payment of fringe benefits.

Overtime

Workers employed on a public works job for more than eight hours in a day or 40 hours in a week must be paid overtime for each additional hour so worked (ORS 279.334). Overtime is calculated at no less than one and one-half times the basic hourly rate as determined by the Commissioner of Labor (not including fringe benefits which are paid at the straight rate for every hour worked). In the computation of overtime, travel pay does not need to be included but zone pay differentials do.

Work performed on Saturday, Sunday or legal holidays must also be compensated at time and one-half. Legal holidays for purposes of Prevailing Wage Rates include the following: 1) New Year's Day on January l; 2) Memorial Day on the last Monday in May; 3) Independence Day on July 4; 4) Labor Day on the first Monday in September; 5) Thanksgiving Day on the fourth Thursday in November; 6) Christmas Day on December 25.

NOTE: Contractors who are signatory to a collective bargaining agreement may be subject to different overtime requirements (ORS 279.334[3]).

Certification of Payroll

The law requires every contractor and subcontractor to file certain information on wages paid to each worker employed on a public works contract. This statement must completely and accurately reflect payroll records for the work week immediately preceding the submission. A contractor or subcontractor must complete and submit the certified statement contained on Form WH-38 as well as the information required on the weekly payroll side of the form. A copy of Form WH-38 and instructions for completing it are included in the back of this booklet; xeroxed copies may be used for filing.

The schedule for submitting payroll information is as follows: once within 15 days of the date the contractor or subcontractor first began work on the project and once before the final inspection of the project by the public contracting agency; in addition, for projects exceeding 90 days, submissions are to be made at 90 day intervals. Payroll information is to be filed with both the public contracting agency and the Wage and Hour Division, Bureau of Labor and Industries, P.O. Box 800, Portland, Oregon 97201-0800. The payroll information must be kept by the contractor and or subcontractor for three years.

COMMONLY ASKED QUESTIONS

1) What are "Prevailing Wage Rates?"

A prevailing wage rate is the minimum wage, including fringe benefits to be paid workers employed on contracts for public works. Different rates are established for specific trades and specific geographical areas.

2) Who must be paid "Prevailing Wage Rates?"

All employees of a contractor or subcontractor engaged on a public works project when the total price of the project is $10,000 or more must receive at least the Prevailing Wage Rate (PWR) for time worked on the project, unless otherwise exempt.

Supervisory and office/clerical employees are not required to be paid the PWR. A person who owns and operates his/her own truck on construction projects (Owner/Operator) is not required to be paid the PWR.

3) What about contracts when Federal funds are used?

When more than $2,000 of federal funds are involved, the contract is usually subject to the provisions of the Davis-Bacon Act, not Oregon statutes. Further information may be obtained from the U.S. Department of Labor, Wage and Hour Division, Portland, Oregon (326-3057). However, in the event that federal funds are involved, but the contract is not regulated under Davis-Bacon, Oregon's Prevailing Wage Rates Statutes may apply (ORS 279.348 - 279.365).

4) I don't have a pension fund. How do I calculate fringe benefits?

Workers must receive at a minimum the sum of the basic hourly rate plus all fringe benefits for each hour worked on a public works contract. Fringe benefits may be paid either to a third party trust account or in cash directly to the worker.

5) My employees receive health benefits. Do I get credit for the health benefit when I prepare my payroll on a public works project?

Yes. Any expenditures an employer makes for bona fide employee benefits can be charged against the fringe benefit payments designated in the Prevailing Wage Rate Booklet. To learn how to compute the correct hourly charge, call the Wage and Hour Division (229-5750).

6) What if the employees are not paid on an hourly basis?

All workers must receive at least the basic hourly rate of wage and fringe benefits for each hour worked on the project. If an employee is paid other than on an hourly basis, the equivalent hourly rate (for both wages and fringe benefits) must still be at least equal to the rates published.

7) How do I classify workers?

Virtually all of the job classifications/trades normally used in the construction industry are represented by the job classifications used in this PWR publication. These classification titles should be used according to common practice. Try to fit your workers into existing classifications. If you have questions about how to classify workers, contact the Wage and Hour Division at 229-5750 in Portland or at one of the offices listed on page 1 of this booklet.

Laborers who do basic work requiring no specific skills, training, or knowledge are generally classified as Group 1 Laborers.

(Note that Landscapers are classified as Laborers, and Ornamental Ironworkers are classified as Ironworkers.)

COMMONLY ASKED QUESTIONS (Continued)

8) When are new rates determined? How long are they effective?

Prevailing Wage Rates are determined once each year by the Commissioner of the Bureau of Labor and Industries. The Commissioner may amend the rates at any time. The rates are usually amended at least once each year. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the contract, with one exception. If during the bidding process the prevailing wage rate changes, the public contracting agency (not the contractor) has the option of amending the bid specifications to reflect such change.

9) How do I post Prevailing Wage Rates?

Every contractor or subcontractor employing workers on a public works project is required to post the applicable Prevailing Wage Rates in a conspicuous and accessible place in or about the work-site. Rates need to be posted for the duration of the job. Contractors and subcontractors who intentionally fail to post the PWR can be made ineligible to receive any public works contract for up to three years.

10) What can I do about a contractor who is not complying with Oregon's PWR law?

File a complaint with the nearest office of the Oregon Bureau of Labor and Industries or contact the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. 5th Avenue, Portland, Oregon 97201 (229-5750). Other Bureau offices are located in Bend (388-6330), Coos Bay (269-4575), Eugene (686-7623), Medford (776-6013), Pendleton (276-7884) and Salem (378-3292). You may also complain to the contracting agency, which has the contractual authority to pay PWR claims directly to a contractor's or subcontractor's workers (ORS 279.314).

11) What happens to contractors who do not comply with PWR statutes?

Contractors and subcontractors who pay less than the Prevailing Wage Rates may be liable to the workers affected for the amount found due plus an equal amount as liquidated damages (ORS 279.356). Contracting agencies also have the contractual authority to withhold payments due or to be due to the contractor or subcontractor in order to pay the unpaid prevailing wages directly to the worker (ORS 279.314).

Contractors and subcontractors who intentionally refuse to pay the Prevailing Wage Rate to workers employed on public works or to post the PWR on the job site may be determined to be ineligible to receive any public works contracts for a period of up to three years (ORS 279.361). Workers employed by the contractor or subcontractors have a right of action against the surety of the prime contractor for any unpaid prevailing wages.

A list is kept of all contractors, subcontractors, and other persons ineligible to receive public works contracts and subcontracts. When a contractor or subcontractor is a corporation, the individual officers and agents of the corporation can be debarred, in addition to the corporation. As a result, individuals who intentionally fail to pay or post the PWR are prevented from simply moving from one corporation to another.

12) How much do I pay apprentices?

To qualify as an apprentice, the worker must be registered in a bona fide apprenticeship program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship Agency recognized by BAT. For information call 229-6573. The apprentice is to receive all fringe benefits and a percentage of the journeyman's wage rate as listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship committee. All other workers receive rates as published.

13) What records must I keep? For how long?

Contractors and subcontractors are required to keep records necessary for determining if Prevailing Wage Rates were paid. These records must include the Payroll and Certified Statement Form (WH-38) as well as the following: The name and address of each employee; the work classification(s) of each employee; the rate(s) of wages and fringe benefits paid to each employee; the rate(s) of fringe benefit payments made in lieu of those required to be provided to each employee; total daily and weekly compensation paid to each employee; daily and weekly hours worked by each employee; apprenticeship and training agreements; any payroll and other such records pertaining to the employment of employees upon a public works contract.

These need to be kept for a period of three (3) years from the completion of the public work contract. Records relating to public works contracts must be maintained separately from records relating to private projects/ contracts.

14) What forms are public agencies required to file with the Bureau of Labor and Industries?

Public agencies are required to prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement that the agency intends to fund during the subsequent budget period (ORS 279.023[2]). If, after the original filing, the agency plans additional public improvements, a revised list is to be submitted (OAR 839-16-008[2]).

The "Notice of Award of Public Works Contract" is to be filed with the Wage and Hour Division within 30 days of the date when a contract is awarded which requires the payment of Prevailing Wage Rates (i.e., is regulated under ORS 279.348 to 279.365).

Copies of the "Planned Public Improvement Summary" (Form No. WH-118), the "Capital Improvement Project Cost Comparison Estimate" (WH-119), and the "Notice of Award of Public Works Contract" (WH-81) can be found at the back of this booklet.

15) Does a contracting agency have any power to enforce payment of Prevailing Wage Rates on its public works projects?

Yes. According to ORS 279.314, all public contracts for work or services must contain a clause or condition permitting the contracting agency to pay a worker's past due wage claim, charging the payment against funds due or to become due to the contractor.

NOTE

There have been several changes in addition to the usual wage and fringe benefit up-dates in the section which follows. We have attempted to make them more noticeable by printing them in **bold type.** You will find such changes under the following trades.

CARPENTERS

This is the only trade which still has a less than 100% wage rate. Note that the conditions under which the lower rate may be used have been simplified and the dollar amount which separates the two rates has been reduced to $750 thousand. Carpenters have added a Group 7 Marine Piledriver to their wage rates. In addition the Carpenters have changed their zone differentials by both changing the rates and by adding a zone 6.

LABORERS

Laborers no longer have a less than 100% wage rate. The Hazardous Waste Removal Differential note has been rewritten to emphasize that it applies only to Federally Designated Hazardous Waste sites. A footnote has been added to the Group 3 classification of "Pipe Layer of all Types" to clarify that Laborers do this type of work on public thoroughfares only.

POWER EQUIPMENT OPERATORS

The Hazardous Waste Removal Differential note has been rewritten to emphasize that it applies only to Federally Designated Hazardous Waste sites.

TRUCK DRIVERS

The Hazardous Waste Removal Differential note has been rewritten to emphasize that it applies only to Federally Designated Hazardous Waste sites. The number of groups has been cut from 14 to 6 and there have been many changes in the description of the work done by the various groups.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

ASBESTOS WORKERS

Installation of insulation on mechanical systems*

Journeyman Asbestos Worker

o Projects in buildings which are not used for manufacturing, manufacturing services or similar processes (Offices, schools, laboratories, etc.)	18.10	4.83
o Projects in buildings which are used for manufacturing, manufacturing services and similar processes (water treatment plants, electrical generating plants, road maintenance shops, etc.)	19.45	4.83

Removal of insulation on mechanical systems* which are not going to be scrapped.**

o Hazardous Materials Handler Mechanic (in any type of project regardless of value)	12.71	2.70

* Mechanical systems include pipes, boilers, ducts, flues, breechings, etc.

** The removal of all insulation materials from mechanical systems is exclusively the work of Asbestos Workers, unless the mechanical systems are going to be scrapped. It does not matter whether the insulation materials contain asbestos. Laborers do all removal of insulation materials on mechanical systems to be scrapped and any non mechanical (walls, ceilings, floors, beams, etc.) insulation. They also do loading of any insulation materials that have already been removed, bagged and tagged, as well as cleanup at the removal site and all work done at the disposal site. Laborers performing asbestos removal are classified as Group 3 laborers.

BOILERMAKERS

o Erection and repair of storage tanks, tower tanks, standpipes, swimming pools and reservoirs.	20.58	5.37
o All other work	21.79	5.37

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

BRICKLAYERS/STONEMASONS

Area 1 (add $0.75 per hour to Fringe for Refractory repair work.)	19.78	4.60
Area 2	18.00	4.37

Area 1

Baker	Hood River	Polk	Wallowa
Clackamas	Malheur (a)	Sherman	Wasco (b)
Clatsop	Marion	Tillamook	Washington
Columbia	Morrow	Umatilla	Yamhill
Gilliam	Multnomah	Union	

Area 2

Benton	Douglas	Josephine	Linn
Crook	Grant	Klamath	Malheur (c)
Coos	Harney	Lake	Wasco (d)
Curry	Jackson	Lane	Wheeler
Deschutes	Jefferson	Lincoln	

a) North half
b) North of the City of Maupin
c) South half
d) Including the City of Maupin and South thereof

CARPENTERS

Under the following circumstances a rate lower than the basic hourly rate may be used for carpenters:

The lower rate applies to all public works projects of less than $750 thousand involving construction, reconstruction, major renovation or painting. In determining the $750 thousand figure, do include the cost of all surfacing and paving, but do not include the cost of underground utilities (i.e., the amount of the contract dedicated to facilities for electricity, water, gas, sewerage including storm water, and communications) which are five feet or more outside of and away from any building, bridge or dock which is a part of the project, and are subordinate and incidental to the major purpose of the project.

NOTE: In determining whether or not the lower rates are applicable, consider the total project cost, and not the cost of any individual contract (or schedule) within that project.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

CARPENTERS (See above for explanation of when the lower rates may be used)

	LESS THAN 100%	100%	
Zone 1 (Base Rate):			
o Group 1	16.19	19.17	4.12
o Group 2	16.31	19.32	4.12
o Group 3	16.64	19.67	4.12
o Group 4	16.76	19.82	4.12
o Group 5	16.67	19.67	4.12
o Group 6	16.75	19.82	4.12
o Group 7	17.17	20.17	4.12

Zone Differential for Carpenters (Add to Zone 1 Rate)

Zone 2	**.85**
Zone 3	**1.25**
Zone 4	**1.70**
Zone 5	**2.00**
Zone 6	**3.00**

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.
Zone 2: More than 30 miles but less than 40 miles.
Zone 3: More than 40 miles but less than 50 miles.
Zone 4: More than 50 miles but less than 60 miles.
Zone 5: More than 60 miles but less than 70 miles.
Zone 6: More than 70 miles.

Reference cities for Group 1, 2, 3 and 4 Carpenters

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

Zones for Groups 5, 6 and 7 Carpenters are determined by the distance between the project site and either 1) the worker's residence or 2) City Hall of a reference city for the appropriate group shown below, whichever is closer.

Reference Cities for Groups 5, 6 and 7

Astoria	Eugene	Newport	Salem
Bend	Klamath Falls	Portland	The Dalles
North Bend	Medford	Roseburg	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

CARPENTERS (Continued)

Group 1

Auto. Nailing Machine
Carpenters
Form Stripper
Manhole Builders
Non-irritating Ins.
Cabinet & Shelving Installers (wood or steel)

Group 2

Floor Layers & Finishers
Stationary Power Saw Operators
Wall & Ceiling Insulators
Irritating Insulation

Group 3

Millwrights
Machine Erectors
Machinists

Group 4

Certified Welders

Group 5

Bridge, Dock & Wharf Builders
Piledrivermen

Group 6

Boom Men

Group 7

Marine Piledriver

CEMENT MASONS

Zone 1 (Base Rate):		
o Group 1	17.14	5.77
o Group 2	17.48	5.77
o Group 3	17.48	5.77
o Group 4	17.83	5.77

Group 1 Cement Masons, hand chipping and patching grouting, end pointing, screed setting, plugging, filling bolt holes, dry packing, setting curb forms, planks, stakes, lines and grades.

Group 2 Composition Workers (includes installation of epoxy & other resinous toppings), and Power Machine Operators.

Group 3 Cement masons working on suspended, swinging and/or hanging scaffold.

Group 4 Cement Masons performing work of both Group 2 and Group 3 at the same time.

Zone Differential for Cement Masons (Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

CEMENT MASONS (continued)

Zone 1: Projects within 30 miles of City Hall in the cities listed below.
Zone 2: More than 30 miles but less than 40 miles.
Zone 3: More than 40 miles but less than 50 miles.
Zone 4: More than 50 miles but less than 80 miles.
Zone 5: More than 80 miles.

Cities

Bend	Corvallis	Coos Bay	Roseburg	Eugene
Pasco	The Dalles	Medford	Longview	K. Falls
Salem	Pendleton	Astoria	Portland	Newport

DIVERS & DIVERS' TENDERS

o Divers	48.04	4.12
o Divers' Tenders	21.23	4.12

Depth Pay and Enclosure Pay are added to the Divers' Basic Hourly Rate to obtain the Total Hourly Rate for the diver.

BASIC HOURLY RATE + HOURLY DEPTH PAY + HOURLY ENCLOSURE PAY = DIVERS' TOTAL HOURLY PAY

o Divers' Depth Pay

Depth of Dive	Hourly Depth Pay
50-100 ft	([total ft- 50] x $1.00)/hr.
100-150 ft	$ 50 + ([total ft-100] x $1.50)/hr.
150-200 ft	$125 + ([total ft-150] x $2.00)/hr.

o Divers' Enclosure Pay(working without vertical escape)

Distance Travelled In the Enclosure	Hourly Enclosure Pay
5 - 50 ft	$ .50/hr
50 - 100 ft	$ .63/hr
100 - 150 ft	$ 2.13/hr
150 - 200 ft	$ 4.63/hr
200 - 300 ft	$ 4.63 + ([total ft-200]x $.05)/hr
300 - 450 ft	$ 9.63 + ([total ft-300]x $.10)/hr
450 - 600 ft	$24.63 + ([total ft-450]x $.20)/hr

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

DREDGING

Zone 1 (Base Rate):		
o Leverman-Hydraulic	20.07	5.42
o Leverman-Dipper	20.88	5.42
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	19.45	5.42
o Tenderman (Boatman, Attending Dredge Plan); Fireman	18.98	5.42
o Assistant Mate (Deckhand); Oiler	18.58	5.42

Zone Differential for Dredging
(Add to Zone 1 Rate)

Zone 2	1.50
Zone 3	1.90
Zone 4	2.40
Zone 5	3.00

Zone 1: Center of job site not more than 15 miles from the City Hall of Portland
Zone 2: More than 15 miles but not more than 30
Zone 3: More than 30 miles but not more than 50
Zone 4: More than 50 miles but not more than 70
Zone 5: More than 70 miles.

DRYWALL/WETWALL

o Drywall (Accoustical and Drywall Applicator)	18.05	4.87
o Wetwall (Lather)	16.80	6.12

ELECTRICIANS

Area 1:		
o Electricians	18.15	3.40
o Cable Splicers	19.97	3.50
Area 2:		
o Electricians	20.71	5.63
o Cable Splicers	21.75	5.66
Area 3:	18.35	5.60
Area 4:	20.75	3.82
Area 5:		
o Electricians	21.35	5.74
o Cable Splicers	22.10	5.76
Area 6:		
o Electricians	18.72	5.26
o Cable Splicers	20.59	5.32

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

ELECTRICIANS (continued)

Area 1	Area 2	Area 2(cont)	Area 3
Malheur	Baker	Umatilla	Coos
	Gilliam	Union	Curry
	Grant	Wallowa	Lincoln
	Morrow	Wheeler	Douglas (a)
			Lane (a)

Area 4	Area 5	Area 6
Benton	Clackamas	Harney
Crook	Clatsop	Jackson
Deschutes	Columbia	Josephine
Jefferson	Hood River	Klamath
Lane (b)	Multnomah	Lake
Linn	Sherman	Douglas (b)
Marion	Tillamook	
Polk	Wasco	
Yamhill(c)	Washington	
	Yamhill (d)	

a) Those portions lying west of a line North and South from the NE corner of Coos County to the SE corner of Lincoln County
b) That portion lying east of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County
c) South half
d) North half

ELEVATOR CONSTRUCTORS

Area 1		
o Mechanic	19.34	5.68 + a
o Helper	13.54	5.68 + a
o Probationary Helper	9.67	-
Area 2		
o Mechanic	21.74	5.68 + a
o Helper	15.22	5.68 + a
o Probationary Helper	10.87	-

a) Plus 8% of basic hourly rate for employees with more than 5 years of service; 6% of basic hourly rate for 6 months to 5 years of service.

Area 1	Area 2
Umatilla	All
Wallowa	Remaining
Union	Counties
Baker	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

GLAZIERS

Area 1	19.50	3.70
(Add $1.00 to base rate if safety belt is required by State safety regulations) (Add $4.00 to base rate for work done from a non-motorized single-man bosun chair)		
Area 2	13.76	1.37
(Add $0.50 to base rate if working at over 35 feet of free fall in height)		

Area 1	Area 2
All Counties except Malheur	Malheur

HIGHWAY AND PARKING STRIPERS

	18.40	2.00

IRONWORKERS

o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men	19.56	6.86

LABORERS

Zone 1 (Base Rate):		
o Group 1	14.62	5.12
o Group 2	14.97	5.12
o Group 3	15.27	5.12
o Group 4	15.52	5.12
o Group 5	13.03	5.12
o Group 6	9.78	5.12

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. A Group 1 base rate is used for General Laborer on such a site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

Zone Differential for Laborers
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.
Zone 2: More than 30 miles but less than 40 miles.
Zone 3: More than 40 miles but less than 50 miles.
Zone 4: More than 50 miles but less than 80 miles.
Zone 5: More than 80 miles.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LABORERS (continued)

Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

Group 1

Asphalt Plant Laborers
Asphalt Spreaders
Batch Weighman
Broomers
Brush Burners/Cutters
Carpenter Tender
Car & Truck Loaders
Change-House Man
Choke Setter
Chipper Operator (a)
Clean-up Laborers ***
Concrete Laborers
Culvert (hand labor)
Curing, concrete
Demolition, wrecking and moving ***
Driller Tender
Dry-shack Man
Dumpers, road oiling crew
Dumpmen for grading crew
Elevator Feeders
Fine Graders
Fire Watch
Form Strippers (b)
General Laborer ***
Guardrail, Median Rail (c)
Leverman or Aggregate Spreader (d)
Material Yard Man (e)
Powderman Tender
Railroad Track Laborers
Ribbon Setters (f)
Rip Rap Man (Hand Placed)
Road Pump Tender
Sewer Laborer
Signalman
Skipman
Slopers
Sprayman
Stake Chaser
Stockpiler
Timber Faller/Bucker (Hand Labor)
Toolroom Man (Job site)
Tunnel Bull Gang (Above Ground)
Weight-Man-Crusher (g)

a) Pittsburg or similar types
b) Not swinging stages
c) Reference Post, Guide Post, or Right-of Way Marker
d) Flaherty, Loading Spotters or similar types
e) Including electrical
f) Including steel forms
g) Aggregate when used

*** Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LABORERS (continued)

Group 2

Applicators (a)
Brush Cutters (b)
Burners
Choker Splicer
Clary Power Spreader(c)
Clean up Nozzleman-Green Cutter (d)
Concrete Power Buggyman
Crusher Feeder
Demolition/Wrecking (e)
Grade Checker
Granite Nozzleman Tender
Gunite or Pot Tender
Handlers/Mixers (f)
Post Hole Digger, Air, gas or electric
Power Tool Operators (g)
Sand Blasting (wet)
Stake Setter
Tampers
Tunnel Muckers/Brakeman/Concrete Crew/Bull Gang (underground)

a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project
b) Power saw
c) And similar types of spreaders
d) Concrete, rock, etc.
e) Charred Materials
f) Of all materials of an irritating nature including cement and lime
g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers, Vibrators (less than 4" diameter)

Group 3

Asbestos Removal
Asphalt Rakers
Bit Grinder
Concrete Saw Operator
Drill Doctor
Drill Operators (a)
Gunite Nozzleman
High Scalers, Strippers, Drillers(b)
Laser Beam (c)
Manhole Builder
Powdermen
Power Saw Operators (d)
Pumpcrete Nozzleman
Sand Blasting (dry)
Pipe Layers of all Types (f)
Sewer Timberman
Track Liners (e)
Tugger Operator
Tunnel-Chuck Tenders, Nippers, Timberman
Vibrator (4" and larger)
Water Blaster
Welder

a) Air Tracks, Cat Drills, Wagon Drills, Rubber-mounted drills, and other similar types
b) Covers work in Swinging Stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping
c) Pipe laying, applicable when employee assigned to move, set up, align Laser Beam.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LABORERS (continued)

d) Bucking and falling
e) Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks
f) Public thoroughfare only

Group 4

Laser Beam (Tunnel), applicable when employee assigned to move, set-up, align laser beam
Tunnel Miners
Tunnel Powderman

Group 5

Flagger

Group 6

Fence Builder — Landscaping or planting laborer

LIMITED ENERGY ELECTRICIANS

May only be used for electrical work not exceeding 100 va in Class II and III installations (as defined in Article 725 of the National Electrical Code):

Area 1	16.24	4.92
Area 2	16.24	4.92
Area 3	10.94	2.33
Area 4	11.24	2.49
Area 5	12.26	2.52
Area 6	11.08	2.65
Area 7	11.46	2.05
Area 8	10.91	2.53
Area 9	16.24	4.92
Area 10	11.38	1.85
Area 11	12.35	1.93
Area 12	14.82	1.96
Area 13	12.52	2.37
Area 14	12.22	2.13

Area 1 — Clatsop, Columbia, Tillamook
Area 2 — Clackamas, Multnomah, Washington, Yamhill (north half)
Area 3 — Marion, Polk, Yamhill (south half)
Area 4 — Benton, Lincoln, Linn
Area 5 — Lane
Area 6 — Douglas
Area 7 — Coos, Curry
Area 8 — Jackson, Josephine
Area 9 — Hood River, Sherman, Wasco

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LIMITED ENERGY ELECTRICIANS (continued)

Area 10 — Crook, Deschutes, Jefferson
Area 11 — Klamath, Lake
Area 12 — Gilliam, Grant, Morrow, Umatilla, Wheeler
Area 13 — Baker, Union, Wallowa
Area 14 — Harney, Malheur

LINE CONSTRUCTION

Area 1

o Group 1	21.68	5.26
o Group 2	19.59	5.19
o Group 3	16.12	4.06
o Group 4	16.89	4.09
o Group 5	14.78	4.01
o Group 6	13.90	3.99

Area 2:

o Cable Splicers	19.41	3.27
o Journeyman Lineman	17.65	3.21
o Line Equip. Mech. (Right-of-way)	15.89	3.14
o Line Equip. Oper.	15.89	3.14
o Groundman	11.92	2.98

Area 1
All counties except Malheur County

Group 1	Group 2
Cable Splicers	Certified Lineman Welder
Leadman Pole Sprayer	Heavy Line Equipment Man
	Lineman
	Pole Sprayer
Group 3	**Group 4**
Tree Trimmer	Line Equipment Man
Group 5	**Group 6**
Head Groundman	Groundman
Jackhammer Man	
Powderman	

Area 2
Malheur County

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

MARBLE SETTERS (Includes Granite)

Area 1	20.78	4.60

Area 1

Baker	Hood River	Sherman	Wallowa
Clackamas	Malheur (a)	Tillamook	Wasco (b)
Clatsop	Morrow	Union	Washington
Columbia	Multnomah	Umatilla	Yamhill (a)
Gilliam			

a) North half b) North of the City of Maupin

PAINTERS & DRYWALL TAPERS

Area 1		
o Painters & Drywall Tapers	12.25	1.78
Area 2		
o Brush	15.00	1.99
o Spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning.	15.50	1.99
o Drywall Tapers	19.90	3.05

Area 1	Area 2
Malheur County	Remaining Counties

PLASTERERS

Area 1	18.58	4.02
Area 2		
o Nozzleman	20.43	4.06
o Swinging scaffold	19.43	4.06
o all other work	18.93	4.06

Area 1	Area 1(cont)	Area 1(cont)	Area 2
Benton	Deschutes	Lincoln (b)	All
Coos	Harney	Linn (b)	remaining
Crook	Jefferson	Wasco (b)	counties
Curry	Klamath (a)	Wheeler (b)	
Douglas	Lane		

a) Northern one-third b) South half

PLUMBERS & STEAMFITTERS/PIPEFITTERS

Area 1 (Both)	20.23	5.15
Area 2 (Both)	22.35	5.65
Area 3 (Both)	20.40	5.10

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

PLUMBERS & STEAMFITTERS/PIPEFITTERS (cont)

Area 1	Area 2	Area 3
Baker	Grant (b)	All remaining counties
Harney (a)	Morrow	
Malheur	Umatilla	
	Wallowa	
	Union	

a) Except Northwest Portion
b) Except Southwest Corner

POWER EQUIPMENT OPERATORS

Zone 1 (Base Rate):		
o Group 1	19.60	5.67
o Group 2	19.25	5.67
o Group 3	18.65	5.67
o Group 4	18.25	5.67
o Group 5	17.75	5.67
o Group 6	17.05	5.67

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

ZONE RATES AND DESCRIPTIONS
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.
Zone 2: More than 30 miles but less than 40 miles.
Zone 3: More than 40 miles but less than 50 miles.
Zone 4: More than 50 miles but less than 80 miles.
Zone 5: More than 80 miles.

Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	PortOrford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (continued)

GROUP CLASSIFICATIONS

ASPHALT

6 Plant Oiler
6 Plant Fireman
6 Pugmill Operator (any type)
6 Truck mounted asphalt spreader, with screed
4 Screed Operator
5 Extrusion Machine Operator
2 Asphalt Plant Operator (any type)
4 Asphalt Paver Operator
5 Roller Operator (any asphalt mix)
4 Diesel-Electric Engineer, Plant
5 Asphalt Burner and Reconditioner Operator (anytype),84
4 Roto-Mill, pavement profiler operator, under 6 foot lateral cut
5 Roto-Mill, pavement profiler, ground man
2 Roto-Mill, pavement profiler operator, 6 foot lateral cut and over

BLADE

6 Blade Operator, pulled type
4 Blade Operator
4 Blade Operator, Finish
4 Blade Operator, externally controlled by electronic, mechanical hydraulic means
4 Blade Operator, multi-engine
2 Auto Grader or "Trimmer" Operator

BULLDOZERS

4 Bulldozer Operator
4 Drill Cat Operator
4 Side-Boom Operator
2 Tandem bulldozer operator (quadnine and similar type, D-11)
4 Bulldozer Operator, twin engine (TC 12 and similar type, D-10)
4 Cable-Plow Operator (any type)

CLEARING

4 Log Skidder Operator
4 Chipper Operator
4 Incinerator Operator
4 Stump Splitter Operator

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

COMPRESSORS

6 Compressor Operator (any power), under 1,250 cu. ft. total capacity
5 Compressor Operator (any power), over 1,250 cu. ft. capacity

COMPACTORS - Self-Propelled

5 Compactor Operator, including vibratory
5 Wagner Patcor Operator or similar type (without blade)
4 Compactor Operator, with blade
4 Compactor Operator, multi-engine

CONCRETE

6 Plant Oiler
6 Assistant Conveyor Operator
6 Conveyor Operator
6 Mixer Box Operator (C.T.B., dry batch, etc.)
6 Cement Hog Operator
6 Concrete Saw Operator
6 Concrete Curing Machine Operator (riding type)
6 Wire Mat or Brooming Machine Operator
5 Combination Mixer and Compressor Operator, gunite work
5 Concrete Batch Plant Quality Control Operator
5 Beltcrete Operator
5 Pumpcrete Operator (any type)
5 Pavement Grinder and/or Grooving Machine Operator (riding type)
4 Mixer Mobile Operator
5 Cement Pump Operator, Fuller-Kenyon and similar
5 Concrete Pump Operator
5 Grouting Machine Operator
4 Screed Operator
4 Concrete Cooling Machine Operator
5 Concrete Mixer Operator, single drum, any capacity
2 Batch Plant and/or Wet Mix Operator, 1 and 2 drum
1 Batch Plant and/or Wet Mix Operator, 3 units or more
5 Cast in place pipe laying machine
5 Maginnis Internal Full Slab Vibrator Operator
5 Concrete Finishing Machine Operator, Clary, Johnson, Bidwell, Burgess bridge deck or similar type
5 Curb Machine Operator, Mechanical Berm, Curb and/or Curb and Gutter
5 Concrete Joint Machine Operator
5 Concrete Planer Operator
5 Tower Mobile Operator
5 Power Jumbo Operator setting slip forms etc., in tunnels

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

CONCRETE (continued)

5	Slip Form Pumps, power driven hydraulic lifting device for concrete forms	
5	Concrete Paving Machine Operator	
5	Concrete Finishing Machine Operator	
5	Concrete Spreader Operator	
4	Concrete Paving Road Mixer	
2	Automatic Concrete Slip Form Paver Operator	
2	Concrete Canal Line Operator	
4	Concrete Breaker	
4	Reinforced Tank Banding Machine (K-17 or similar types)	
2	Concrete Profiler, Diamond Head	

CRANE

6	Oiler	
6	Truck Crane Oiler-Driver, 25 ton capacity or over	
6	Fireman, all equipment	
6	A-Frame Truck Operator, single drum	
6	Tugger or Coffin Type Hoist Operator	
5	Helicopter Hoist Operator	
5	Hoist Operator, single drum	
5	Elevator Operator	
5	A-Frame Truck Operator, double drum	
5	Boom Truck Operator	
4	Chicago Boom and similar types	
4	Lift Slab Machine Operator	
4	Boom Type lifting device, 5 ton capacity or less	
4	Cerry Picker or similar type crane-hoist, 5 ton capacity or less	
4	Crane Operator, under 25 ton (except for rough terrain)	
4	Hoist Operator, two drum	
4	Hoist Operator, three or more drums	
4	Derrick Operator, under 100 ton	
4	Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over	
4	Cableway Operator, up to 25 tons	
2	Cableway Operator, 25 tons and over	
4	Crane Operator, over 25 tons and including 40 tons	
4	Bridge Crane Operator, Locomotive, Gantry, Overhead	
2	Crane Operator, over 40 tons and including 20 tons	
1	Crane Operator, over 200 tons	
2	Tower Crane Operator	
2	Whirley Operator, up to and including 150 tons	
1	Whirley Operator, over 150 tons	
1	Helicopter Operators, when used in erecting work	
5	Hydraulic Boom Truck Operator, Pittman	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

CRUSHER

6	Crusher Oiler	
6	Crusher Feederman	
4	Generator Operator	
4	Diesel-Electric Engineer	
4	Grizzley Operator	
4	Crusher Plant Operator	

DRILLING

6	Drill Tender	
6	Auger Oiler	
5	Churn Drill and Earth Boring Machine Operator	
4	Drill Doctor	
4	Boring Machine Operator	
4	Driller - Percussion, Diamond, Core, Cable, Rotary and similar type	

FLOATING EQUIPMENT

6	Deckhand	
6	Boatman	
5	Fireman	
4	Diesel-Electric Engineer	
4	Jack Operator, elevating barges	
4	Barge Operator, self-unloading	
4	Piledriver Operator (not crane type)	
4	Floating Clamshell, etc. Operator, under 3 cu. yd.	
4	Floating Crane (derrick barge) Operator, less than 30 tons	
2	Floating Clamshell, etc. Operator, 3 cu. yd. and over	
2	Floating Crane (derrick barge) Operator, 30 tons but less than 150 tons	
1	Floating Crane, 150 tons and over	

FORK LIFT

6	Self-Propelled Scaffolding Operator (excluding working platform)	
6	Fork Lift or Lumber Stacker Operator	
6	Ross Carrier Operato	
5	Lull Hi-Lift Operator or similar type	
5	Fork Lift, over 5 tons	
3	Rock Hound Operator	

GENERATORS

4	Generator Operator	
4	Diesel-Electric Engineer	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

GUARDRAIL EQUIPMENT

6 Oiler
6 Auger Oiler
6 Oiler, combination guardrail machines
4 Guardrail Punch Operator (all types)
6 Guardrail Punch Oiler
4 Guardrail Auger Operator (all types)
4 Combination Guardrail machines. i.e. punch, auger etc.

HAZARDOUS WASTE REMOVAL

5 Assistant to the Engineer (Oiler)
4 Assistant Incinerator Control Board Operator
3 Incinerator Control Board Operator

HEATING PLANT

6 Temporary Heating Plant Operator
4 Surface Heater and Planer Operator

HYDRAULIC HOES

5 Hydraulic Backhoe Operator, wheel type 3/8 cu. yd. and under with or without front end attachments 2-1/2 cu. yd. and under (Ford, John Deere, Case type)
4 Hydraulic Backhoe Operator, Track Type 3/8 cu.yd. (Note: Over 3/8 cu. yd. takes Shovel Classification rate)

LOADERS

6 Bucket Elavator Loader Operator, Barber-Greene and similar types
5 Loaders, rubber-tired type, 2-1/2 cu. yd. and under
5 Elevating Grader Operator, Tractor Towed requiring Operator or Grader
4 Belt Loader Operator, Kolman and Ko Cal types
4 Loader Operator, front end and overhead, 2-1/2 cu. yd. and under 4 cu. yd.
4 Elevating Loader Operator, Athey and similar types
4 Elevating Grader Operator, Sierra, Euclid or similar types
3 Loader Operator, 4 cu. yd. but less that 6 cu. yd.
2 Loader Operator, 6 cu. yd. and over

OILERS

6 Oiler
6 Guardrail Punch Oiler
6 Truck Crane Oiler-Driver, 25 ton or over
6 Auger Oiler
6 Grade Oiler, required to check grade

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

OILERS(continued)

5 Service Oiler (Greaser)
6 Grade Checker

PILEDRIVERS (Use Crane rates when driving or pulling piling)

4 Hammer Operator
4 Piledriver Operator (not crane type)

PIPE LINE - Sewer Water

6 Tar Pot Fireman
6 Tar Pot Fireman (power agitated)
6 Hydraulic Pipe Press Operator
5 Hydra Hammer or similar types
5 Pavement Breaker Operator
4 Pipe Cleaning Machine Operator
4 Pipe Doping Machine Operator
4 Pipe Bending Machine Operator
4 Pipe Wrapping Machine Operator
4 Boring Machine Operator
4 Back Filling Machine Operator

PUMPS

6 Pump Operator, any power
6 Hydrostatic Pump Operator
5 Pump Operator, more than 5 (any size)
5 Pot Rammer Operator

RAILROAD EQUIPMENT

6 Brakeman
6 Oiler
6 Switchman
6 Motorman
6 Ballast Jack Tamper Operator
5 Locomotive Operator
5 Ballast Regulator Operator
5 Ballast Tamper Multi-Purpose Operator
5 Track Liner Operator
5 Tie Spacer Operator
5 Shuttle Car Operator

REMOTE CONTROL

2 Remote controlled earth-moving equipment

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

REPAIRMEN, Heavy Duty

6	Parts Man (Tool Room)	
6	H.D. Repairman Tender	
6	Welder's Tender	
4	Diesel-Electric Engineer (Plant or Floating)	
4	Bolt Threading Machine Operator	
4	Drill Doctor (Bit Grinder)	
4	H.D. Mechanic	
4	H.D. Welder	
4	Machine Tool Operator	
4	Combination H.D. Mechanic-Welder, when dispatched and/or when required to do both	
4	Welder - Certified, when dispatched and/or required	

RUBBER-TIRED SCRAPERS

4	Rubber-tired Scraper Operator, single engine, single scraper	
4	Self-loading, paddle wheel, auger type under 15 cu. yd.	
4	Rubber-tired Scraper Operator, twin engine	
4	Rubber-tired Scraper Operator, with push-pull attachments	
3	Rubber-tired Scraper Operator with tandem scrapers	
2	Rubber-tired Scraper Operator, with tandem scrapers, multi-engine	
4	Self-loading, paddle wheel, auger type 15 cu. yd. and over, single engine	
3	Self-loading, paddle wheel, auger type, finish and/or 2 or more units	

SHOVEL, DRAGLINE, CLAMSHELL, BACKHOE, SKOOPER, ETC., OPERATOR

6	Oiler	
6	Grade Oiler (required to check grade)	
6	Grade Checker	
6	Fireman	
4	Diesel-Electric Engineer	
4	Stationary Drag Scraper Operator	
4	Shovel, Dragline, Clamshell, Hoe etc., Operator under 3 cu. yd.	
4	Grade-all Operator	
2	Shovel, Dragline, Clamshell, Hoe etc., Operator 3 cu. yd. and over	

SIGNALMAN

6	Bell Boy, phones, etc., Operator	
6	Helicopter Radioman (ground)	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

SURFACING (BASE) MATERIAL

6	Roller Operator, grading of base rock (not asphalt)	
5	Roller Operator, Oiling, C.T.B.	
6	Tamping Machine Operator, mechanical, self-propelled	
6	Hydrographic Seeder Machine Operator, straw, pulp or seed	
5	Rock Spreaders, self-propelled	
5	Pulva-mixer or similar types	
4	Blade Mounted Spreaders, Ulrich and similar types	
5	Chip Spreading Machine Operator	
5	Lime Spreading Operator	

SWEEPERS

6	Broom Operator, self-propelled	
5	Sweeper Operator (Wayne type) self-propelled	

TRACTOR - RUBBER TIRED

5	Tractor Operator, rubber-tired, 50 H.P. Flywheel and under	
4	Tractor Operator, rubber -tired, over 50 H.P. Flywheel	
4	Tractor Operator, with boom attachment	
4	Rubber-tired Dozers and Pushers (Michigan, Cat, Hough type)	

TRENCHING MACHINE

6	Oiler	
6	Grade Oiler (required to check grade)	
5	Trenching Machine Operator, maximum digging capacity 3 ft. depth	
4	Trenching Machine Operator, maximum digging capacity over 3 ft. depth	
4	Back Filling Machine Operator	
2	Wheel Excavator	
2	Canal Trimmer	
2	Band Wagon (in conjunction with wheel excavator)	

TUNNEL

4	Mucking Machine Operator	
6	Conveyor Operator (any type)	
4	Shield Operator	
6	Air Filtration Equipment Operator	

WELDING MACHINES

6	Welding Machine Operator	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS
(GROUP CLASSIFICATIONS continued)

UNDERWATER EQUIPMENT

2 Underwater Equipment Operator, remote or otherwise, when used in construction work		

ROOFERS

Area 1:		
o Roofers	17.14	4.30
o Handling coal tar pitch	18.85	4.30
Area 2:		
o Roofers	15.79	4.48
(Add $2.00 per hour to Fringe for work with irritable Bituminous material.)		
Area 3:		
o Roofers	13.46	2.05
(Add $1.50 per hour to Fringe for work with irritable Bituminous material.)		
Area 4:		
o Roofers	15.00	3.85
(Add $2.00 per hour to Fringe for work with irritable Bituminous materials)		
Area 5:		
o Roofers	16.10	3.55
(Add $3.00 per hour to Fringe for work with irritable Bituminous materials)		

Area 1	Area 1(cont)	Area 2	Area 2(cont)
Baker	Multnomah	Benton	Klamath
Clackamas	Sherman	Coos	Lake
Clatsop	Tillamook	Crook	Lane
Columbia	Wasco	Curry	Lincoln
Jefferson	Washington	Deschutes	Linn
Gilliam	Wheeler	Douglas	Marion
Grant		Harney	Polk
Hood River		Jackson	Yamhill
		Josephine	

Area 3	Area 4	Area 5
Malheur	Umatilla	Morrow
	Union	
	Wallowa	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

SHEETMETAL WORKERS

Area 1	18.55	5.63
(Add $0.75 to base rate for work performed on any swinging platform, swinging chair, or swinging ladder)		
Area 2	17.41	4.28
(Add $1.75 to base rate for work performed whenever it is possible for worker to fall 30 feet or more) (Add $1.75 to base rate for work performed in an area where epoxy resins or other injurious chemicals are being applied)		
Area 3	19.75	5.07
(Add $1.00 to base rate for work where it is necessary to wear a chemically activated face mask) (Add $1.00 to base rate for work where employee is required to wear a fresh air mask due to nuclear related work) (Add $.45 to base rate for work on a swinging stage, swinging scaffold or bosun chair in excess of 30 feet above the ground)		
Area 4	17.34	3.79

Area 1

Benton	Gilliam	Linn	Tillamook
Clackamas	Grant	Marion	Wasco
Clatsop	Harney	Multnomah	Washington
Columbia	Hood River	Polk	Wheeler
Crook	Jefferson	Sherman	Yamhill
Deschutes	Lincoln		

Area 2	Area 3	Area 4	Area 4 (cont)
Baker	Morrow	Coos	Josephine
Malheur	Umatilla	Curry	Klamath
	Union	Douglas	Lake
	Wallowa	Jackson	Lane

SOFT FLOOR LAYERS

Area 1	15.98	4.00 + a
Area 2	13.66	1.19

a) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

SOFT FLOOR LAYERS(continued)

Area 1 - All counties except Malheur County
Area 2 - Malheur County

SPRINKLER FITTERS	20.90	4.83

TENDERS TO MASON TRADES

o Tenders for Bricklayers, Tile Setters, Marble Setters and Terrazzo Workers; Topping for Cement Finishers and Morter Mixers.

15.99 4.12

(Add $0.50 to base rate for refractory work)
(Add to base rate an amount equal to that received for safety belt requirements or other unusual job conditions by the mechanic this worker is tending)

TENDERS TO PLASTERERS	15.50	4.12

TILE SETTERS

Area 1	17.60	4.20

(Add $.50 to base rate if safety belt required by State safety regulations or work involves epoxy, furnane, alkor, acetylene, black grouting and/or steam cleaning.)

Area 2	18.00	4.37

(Add $.24 to base rate if safety belt required by State safety regulations; $.20 if work involves epoxy, furnane, alkor, acetylene, black grouting, and/or steam cleaning.)

Area 1	Area 1(cont)	Area 2	Area 2(cont)
Baker	Polk	Benton	Josephine
Clackamas	Sherman	Coos	Klamath
Clatsop	Tillamook	Crook	Lake
Columbia	Umatilla	Curry	Lane
Gilliam	Union	Deschutes	Lincoln
Hood River	Wallowa	Douglas	Linn
Malheur(a)	Wasco (b)	Grant	Malheur (c)
Marion	Washington	Harney	Wasco (d)
Morrow	Yamhill	Jackson	Wheeler
Multnomah		Jefferson	

a) North half
b) North of Maupin
c) South half
d) Maupin and south thereof

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

TILE & TERRAZZO FINISHERS

Area 1	13.54	2.85

(Add $.50 to base rate if safety belt required by State safety regulations or work involves epoxy, furnane, alkor, acetylene, black grouting and/or steam cleaning.)

Area 1

Baker	Hood River	Sherman	Wallowa
Clackamas	Malheur (a)	Tillamook	Wasco (b)
Clatsop	Morrow	Umatilla	Washington
Columbia	Multnomah	Union	Yamhill (a)
Gilliam			

a) North Half
b) North of Maupin

TRUCK DRIVERS

Zone 1 (Base Rate):		
o Group 1	16.73	5.50
o Group 2	16.85	5.50
o Group 3	16.98	5.50
o Group 4	17.23	5.50
o Group 5	17.45	5.50
o Group 6	17.60	5.50
o Group 7	17.88	5.50

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

Zone Differential for Truck Drivers
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.
Zone 2: More than 30 miles but less than 40 miles..
Zone 3: More than 40 miles but less than 50 miles.
Zone 4: More than 50 miles but less than 80 miles.
Zone 5: More than 80 miles.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

TRUCK DRIVERS (continued)

Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

Work	Group
A-Frame or Hydra-lift Truck w/load bearing surface	1
Battery Rebuilder	1
Bus or Man-Haul Driver	1
Concrete Buggies (Power operated)	1
Drivers and Helpers handling sacked cement--add 15¢ per hour	
Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:	
Up to and inc. 10 cu. yds	1
Over 10 cu. yds. and inc. 30 cu. yds	3
Over 30 cu. yds. and inc. 50 cu. yds	4
Over 50 cu. yds. and inc. 60 cu. yds	5
Over 60 cu. yds. and inc. 80 cu. yds	6
Over 80 cu. yds. and inc. 100 cu. yds	7
Dumpsters or Similar Equipment--all sizes	2
Flaherty Spreader Driver or Leverman	2
Lift Jitneys, Fork Lifts--all sizes--used in loading, unloading & transporting material on job site	1
Loader and/or Leverman on Concrete Dry Batch Plant, manually operated	1
Low Bed Equipment, Flat Bed Semi-Truck and Trailer or Doubles transporting equipment or wet or dry materials	2
Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination	1

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

TRUCK DRIVERS (Continued)

Work	Group
Lumber Carrier, Driver-Straddle Carrier--used in loading, unloading and transportation of material on job site	2
Oil Distributor Driver or Leverman	2
Pilot Car	1
Slurry Truck Driver or Leverman	1
Solo Flat Bed and Misc. Body Trucks-- 0-10 tons	1
Transit Mix and Wet or Dry Mix Trucks:	
5 cu. yds. and under	1
Over 5 cu. yds. and inc. 7 cu. yds	2
Over 7 cu. yds. and inc. 11 cu. yds	3
Over 11 cu. yds. and inc. 15 cu. yds.	4
Team Drivers	1
Tireman, full-time basis	1
Truck Helper	1
Truck Mechanic--Welder--Body Repairman	3
Truck Mechanic Helper	1
Water Wagons (Rated Capacity) up to:	
3000 gallons	1
3000 to 5000 gallons	2
5000 to 10,000 gallons	3
10,000 to 15,000 gallons	4
Winch Truck--takes classification of truck on which winch is mounted	

WELDERS; RIGGERS

Receive rate for craft performing operation to which welding and rigging are incidental.

Bureau of Labor and Industries
Wage and Hour Division

PAYROLL

Payroll and Certified Statement Form - For Use in Complying with ORS 279.354

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐	ADDRESS Phone: ( )

FOR WEEK ENDING	CONTRACTING AGENCY Phone ( )	PROJECT AND LOCATION	PROJECT OR CONTRACT NO.	DATE CONTRACT SPECIFICATIONS FIRST ADVERTISED FOR BID

(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) W/H EX-EMP-TIONS	(3) WORK CLASSIFICATION (include group number if applicable)	OT. or ST.	(4) DAY AND DATE HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS					(9) NET WAGE PAID FOR WEEK
								FICA	FEDERAL WITH-HOLDING TAX	STATE WITH-HOLDING TAX	OTHER	TOTAL DEDUC-TIONS	
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CERTIFIED STATEMENT

I _____ , _____
(Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, Subcontractor or Surety) (Building or work)

_____ ; that during the payroll period commencing on the _____day

of _____, 19____, and ending the _____day of _____, 19____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on

behalf of said _____
(Contractor, Subcontractor or Surety)
from the full weekly wages earned by any person, and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as specified in ORS 652.610, and described below:

_____

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for workers contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recongnized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Depertment of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS:
In addition to the basic hourly wage rates paid to each worker listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate progams for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH:
Each worker listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS:

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

I have read this certified statement, know the contents thereof and it is true to my knowledge.

NAME AND TITLE	SIGNATURE

☐ Contractor ☐ Subcontractor ☐ Surety

File this form with the contracting agency and send a true copy to the Bureau of Labor and Industries, Wage and Hour Division, P.O. Box 800, Portland, OR 97207-0800.

BUREAU OF LABOR AND INDUSTRIES - WAGE AND HOUR DIVISION

INSTRUCTIONS FOR COMPLETING PAYROLL AND CERTIFIED STATEMENT FORM, WH-38
(Rev 6/91)

General: This form meets needs resulting from the 1983 amendments to the Prevailing Wage Rate Law. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Bureau of Labor and Industries, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the benefits to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringe benefits.

This form provides for the contractor's showing of the payroll and all monies paid to the employees, whether as basic rates or as cash in lieu of fringe benefits and provides for the contractor's representation in the certified statement that he/she is paying other benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the form follow:

Fill in all boxes at the top of the form. Be sure to enter the date the contract was first advertised for bid by the contracting agency. This date should appear on the bid documents.

Column 1 - Name, Address, and Social Security number of Employee: The employee's full name must be shown on each payroll submitted. The employee's address must also be shown on the first payroll submitted. The address need not be shown on subsequent payrolls unless the address changes. Although not required. space is available in the name and address section so that Social Security numbers can be listed.

Column 2 - Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement.

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Include group number when appropriate. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours worked: Enter as overtime hours all hours worked in excess of 8 hours per day, all hours worked on Saturday and Sunday and hours worked on legal holidays as defined in ORS 279.334.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay, including Fringe Benefits: In the rate of pay box, list actual hourly rate paid the employee for straight time worked plus any cash in lieu of fringe benefits paid to the employee. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate, thus $12.50/2.35. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. Payment of not less than time and one half the basic or regular rate paid is required for overtime under ORS 279.334. In addition to paying not less than the predetermined rate for the classification in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringe benefits, amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS -- Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Commissioner of the Bureau of Labor and Industries shall continue to show on the payroll the basic cash hourly rate and overtime rate paid to employees. Such a contractor shall check paragraph 4(a) of the Certified Statement to indicate that he/she is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in Section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in column (6) of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, the contractor shall check paragraph 4(b) of the Certified Statement to indicate that he/she is paying fringe benefits in cash directly to employees. Any exceptions shall be noted in Sections 4(c).

Use of section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination required is obliged to pay the deficiency directly to the employees as cash in lieu of fringe benefits. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor shall pay, and shall show that he/she is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on the project an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the project and then the gross amount earned on all projects, thus $63.00/120.00.

Column 8 - Deductions: Four columns are provided for showing deductions made. If more than four deductions should be involved, use first 3 columns; show the balance of deductions under "Other" column; show actual total under "Total Deductions" column; and in an attachment to the payroll describe the deductions contained in the "Other" column. All deductions must be in accordance with the provisions of ORS 652.610. If the employee worked on other jobs in addition to this project, show actual deductions from gross wage, but indicate that deductions are based on gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory

Certified Statement Required by ORS 279.354: While this form need not be notarized, the Certified Statement is subject to the penalties provided by ORS 279.990. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the Statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the Statement.

PLANNED PUBLIC IMPROVEMENT SUMMARY

FISCAL YEAR_____ - _____ _____ PAGE_____OF_____

(Name of State or Local Government Agency)

Project Number	Project Name	Project Type	Project Location	Estimated Project Cost	Agency or Contract Work

ORS 279.023 generally states that not less than 30 days prior to adoption of its budget for the subsequent budget period, each public agency shall prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement known to that agency that the agency plans to fund in the budget period... If the agency decides to use its own equipment and personnel for constructing projects estimated to cost more than $50,000, the agency shall show that the decision conforms to the policy of the State of Oregon that public agencies shall make every effort to construct public improvements at the least cost to the public agency, and the public agency shall cause to be kept and preserved a full, true and accurate account of the costs of performing the work including all engineering and administrative expenses and a reasonable estimate of the cost, including investment cost, of the equipment used. NOTE: This Improvement Summary together with the project estimate and least cost determination constitutes a public record available in the usual manner for public review or copying. Mail a copy of this public improvement summary to: Wage and Hour Division, P.O. Box 800, Portland, Oregon 97207-0800.

FORM WH - 118 (Rev 6/91)

CAPITAL IMPROVEMENT PROJECT COST COMPARISON ESTIMATE

_____
(Name of State or Local Government Agency)

DEPARTMENT:
PROPOSED YEAR:
PROJECT DESCRIPTION:

PROJECT NAME:

FUND:
PROJECT NUMBER:

Rough Quantity Estimate	Units	Work Class Description	Agency Force Estimate		Agency Contract Estimate	
			Unit Cost	Total Cost	Unit Cost	Total Cost
				$		$

Estimated Construction Period _____

_____ determines that (Agency Forces)(Contractor) can perform this work at the least cost.
(Name of Agency) (cross out one)

_____
(Agency Official)

FORM WH - 119 (Rev 6/91)

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name _____

Address _____

City, State, Zip _____

Phone Number _____

2. CONTRACTING AGENCY

Name _____

Address _____

City, State, Zip _____

Phone Number _____

Submit this completed notice to:
Wage and Hour Division,
Prevailing Wage Section,
P.O. Box 800
Portland, Oregon 97207-0800

FORM WH-81 (Rev. 1/91)

3. CONTRACT INFORMATION

A. Contract Name and Number:

_____

B. Location of Work: _____

C. County: _____

D. Amount of the Award: $ _____

E. Source of Funds: (i.e. 100% Federal Funds; 50/50 Federal, State; 100% local)

_____

F. Date Contract Awarded: _____

G. Date Contract Specifications Advertised for Bid:

_____

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name ZAK CONSTRUCTION COMPANY

Address 1234 N.W. Camille Street

City, State, Zip Alexandra, OR 97201

Phone Number (503) 122-4567

2. CONTRACTING AGENCY

Name LOPEZ IRRIGATION DISTRICT

Address 1234 N.W. Shannon Court

City, State, Zip Jamestown, OR 97201

Phone Number (503) 987-6543

Submit this completed notice to:
Wage and Hour Division,
Prevailing Wage Section,
P.O. Box 800
Portland, Oregon 97207-0800

FORM WH-81 (Rev. 1/91)

3. CONTRACT INFORMATION

A. Contract Name and Number:

Dam Repair 100-H

B. Location of Work: Becca, Oregon

C. County: Malheur

D. Amount of the Award: $ 25,000

E. Source of Funds: (i.e. 100% Federal Funds; 50/50 Federal, State; 100% local)

100% State

F. Date Contract Awarded: July 16, 1991

G. Date Contract Specifications Advertised for Bid:

July 2, 1991

SAMPLE

COPIES OF FORMS

NOTICE OF AWARD

To: _____

_____

_____

_____

Project Description: _____

_____

The OWNER has considered the Bid submitted by you for the above described work in response to its Advertisement for Bids dated _____, 1991 and Information for Bidders.

You are hereby notified that your Bid has been accepted for items in the amount of $_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance Bond, Payment Bond, and Certificates of Insurance within ten (10) calendar days from the date of this Notice of Award.

If you fail to execute said Agreement and to furnish said Bonds and Certificates of Insurance within ten (10) calendar days from the date of this Notice of Award, the OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your Bid as abandoned and as forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this _____ day of _____, 1991.

_____

(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____

_____ this the _____ day of _____, 1991.

By: _____

Title: _____

AGREEMENT

THIS AGREEMENT, made this ____ day of _____, 1990 by and between the City of Elgin, Oregon, hereinafter called "OWNER" and _____ doing business as (an individual) or (a partnership) or (a corporation), hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of City of Elgin, Oregon - Birch Street and South 14th Avenue Improvements Project - 1991.

2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR will construct the work required by the CONTRACT DOCUMENTS in accordance with the Project Schedule specified in the General Conditions, unless the period for completion is extended otherwise as provided for by the CONTRACT DOCUMENTS.

The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of $_____, or as provided in the BID Schedule.

5. The OWNER will pay to the CONTRACTOR in the manner and at such time as set forth in the General Conditions such amounts as provided in the BID Schedule and required by the CONTRACT DOCUMENTS.

6. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in (three [3]), each of which shall be deemed an original on the date first above written.

OWNER:

CITY OF ELGIN

By_____

Name_____

Title_____

(SEAL)

ATTEST:

_____

Name_____

Title_____

CONTRACTOR:

_____

By_____

Name_____

Title_____

(SEAL)

ATTEST:

_____

Name_____

Title_____

Construction Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28A (1984 Edition)
Prepared through the joint efforts of The Surety Association of America, Engineers' Joint Contract Documents Committee, The Associated General Contractors of America, and the American Institute of Architects.

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1. The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or
2. Deny liability in whole or in part and notify the Owner citing reasons therefor.

5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6. After the Owner has terminated the Contractor's right to complete Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the O shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not greater than those of the Owner under the Construction Contract. To limit of the amount of this Bond, but subject to commitment by the O of the Balance of the Contract Price to mitigation of costs and dam on the Construction Contract, the Surety is obligated without duplica for:

6.1. The responsibilities of the Contractor for correction of defe work and completion of the Construction Contract;

6.2. Additional legal, design professional and delay costs resu from the Contractor's Default, and resulting from the action failure to act of the Surety under Paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specifie the Construction Contract, actual damages caused by del performance or non-performance of the Contractor.

7. The Surety shall not be liable to the Owner or others for obligation the Contractor that are unrelated to the Construction Contract, and Balance of the Contract Price shall not be reduced or set off on acc of any such unrelated obligations. No right of action shall accrue on Bond to any person or entity other than the Owner or its heirs, execu administrators, or successors.

8. The Surety hereby waives notice of any change, including change time, to the Construction Contract or to related subcontracts, purc orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be insti in any court of competent jurisdiction in the location in which the or part of the work is located and shall be instituted within two years Contractor Default or within two years after the Contractor ceased w ing or within two years after the Surety refuses or fails to perfor obligations under this Bond, whichever occurs first. If the provisio this Paragraph are void or prohibited by law, the minimum perio limitation available to sureties as a defense in the jurisdiction of th shall be applicable.

10. Notice to the Surety, the Owner or the Contractor shall be mail delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statuto other legal requirement in the location where the construction was performed, any provision in this Bond conflicting with said statuto legal requirement shall be deemed deleted herefrom and provisions forming to such statutory or other legal requirement shall be de incorporated herein. The intent is that this Bond shall be construed statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable b Owner to the Contractor under the Construction Contract all proper adjustments have been made, including allowan the Contractor of any amounts received or to be receive the Owner in settlement of insurance or other claims for ages to which the Contractor is entitled, reduced by all and proper payments made to or on behalf of the Contr under the Construction Contract.

12.2. Construction Contract: The agreement between the Owner the Contractor identified on the signature page, includin Contract Documents and changes thereto.

12.3. Contractor Default: Failure of the Contractor, which has n been remedied nor waived, to perform or otherwise to co with the terms of the Construction Contract.

12.4. Owner Default: Failure of the Owner, which has neither b remedied nor waived, to pay the Contractor as required by Construction Contract or to perform and complete or co with the other terms thereof.

(FOR INFORMATION ONLY—Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

Construction Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28B (1984 Edition)
Prepared through the joint efforts of the Surety Association of America, Engineers' Joint Contract Documents Committee, The Associated General Contractors of America, American Institute of Architects, American Subcontractors Association, and the Associated Specialty Contractors.

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2. With respect to the Owner, this obligation shall be null and void if the Contractor:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies and holds harmless the Owner from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the Contractor:

1. Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1. Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance By the Contractor furnishing and the Owner accepting this Bo agree that all funds earned by the Contractor in the performance Construction Contract are dedicated to satisfy obligations of th tractor and the Surety under this Bond, subject to the Owner's to use the funds for the completion of the work.

9. The Surety shall not be liable to the Owner, Claimants or oth obligations of the Contractor that are unrelated to the Construct tract. The Owner shall not be liable for payment of any costs or e of any Claimant under this Bond, and shall have under this B obligations to make payments to, give notices on behalf of, or oth have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including cha time, to the Construction Contract or to related subcontracts, pu orders and other obligations.

11. No suit or action shall be commenced by a Claimant under th other than in a court of competent jurisdiction in the location in wh work or part of the work is located or after the expiration of o from the date (1) on which the Claimant gave the notice requi Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last l service was performed by anyone or the last materials or equipme furnished by anyone under the Construction Contract, whichever or (2) first occurs. If the provisions of this Paragraph are void or pro by law, the minimum period of limitation available to sureties as a in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner or the Contractor shall be m delivered to the address shown on the signature page. Actual rec notice by Surety, the Owner or the Contractor, however accomp shall be sufficient compliance as of the date received at the addres on the signature page.

13. When this Bond has been furnished to comply with a statu other legal requirement in the location where the construction wa performed, any provision in this Bond conflicting with said statu legal requirement shall be deemed deleted herefrom and provisio forming to such statutory or other legal requirement shall be incorporated herein. The intent is, that this Bond shall be constru statutory bond and not as a common law bond.

14. Upon request by any person or entity appearing to be a p beneficiary of this Bond, the Contractor shall promptly furnish a this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contra the Contractor or with a subcontractor of the Contra furnish labor, materials or equipment for use in the perfo of the Contract. The intent of this Bond shall be to include limitation in the terms "labor, materials or equipment" th of water, gas, power, light, heat, oil, gasoline, telephone or rental equipment used in the Construction Contract, a tural and engineering services required for performance work of the Contractor and the Contractor's subcontracto all other items for which a mechanic's lien may be asse the jurisdiction where the labor, materials or equipme furnished.

15.2. Construction Contract: The agreement between the Ow the Contractor identified on the signature page, includ Contract Documents and changes thereto.

15.3. Owner Default: Failure of the Owner, which has neith remedied nor waived, to pay the Contractor as required Construction Contract or to perform and complete or with the other terms thereof.

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party

CERTIFICATE OF INSURANCE

This is to certify to (OWNER of Project): _____

That the below described policy or policies have been issued for (CONTRACTOR):

_____

By the (Name and Address of Insurance Company) INSURER: _____

_____

In order to provide insurance coverage as required by the CONTRACT DOCUMENTS (Name of Project): _____

_____

Description of policy or policies: (Policy No., Expiration Date, Coverage, Limits, etc.) (Attach standard ACORD certification form)

_____

_____

_____

The INSURANCE AGENT and the CONTRACTOR both hereby certify that the above named CONTRACTOR does indeed have the full insurance coverage required by the project CONTRACT DOCUMENTS.

The INSURANCE AGENT agrees that it will notify the OWNER in writing of any material change, expiration, or cancellation of the above-described insurance not less than 30 days before such change, expiration, or cancellation becomes effective. It is further agreed that the above-named OWNER, his officers, agents (including Engineer) and employees are included as additional named insureds, but only as respects the performance of the above-described contract.

_____
Name of Insurance Company(s)

_____
Date

_____
Insurance Agency

_____
Date

_____
Authorized Representative

_____
Date

_____
Signature of Contractor

NOTICE TO PROCEED

To: _____ Date: _____

_____ Project: _____

_____ _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____ _____, 19___, on or before August 10, 19 91, which shall be the START WORK DATE, and you are to complete the WORK within 20 consecutive calendar days thereafter, or by August 30, 1991, whichever comes first.

_____

Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by _____ _____ this the _____ day of _____, 1991.

By: _____

Title: _____

CONTRACT CHANGE ORDER

Order No.

Date

Contract For

Owner

To

Contractor

You are hereby requested to comply with the following changes from the contract plans and specificiations:

Description of Changes (Supplemental Plans and Specifications Attached)	DECREASE in Contract Price	INCREASE in Contract Price
	$	$
Totals	$	$
Net Change in Contract Price	$	$

Justifications:

The amount of the Contract will be (Decreased) (Increased By the Sum of:

Dollars ($).

The Contract Total Including this and previous Change Orders Will Be:

($).

The Contract Period Provided for Completion Will Be (Increased) (Decreased) (Unchanged): Days. This document will become a supplement to the contract and all provisions will apply hereto.

Approved (Contractor) (Date)

Recommended (Owner's Architect/Engineer) (Date)

Approved (Owner) (Date)

FINAL PAYMENT ESTIMATE

(Number _____)

Name of Contractor:

Name of Owner (Association):

Date of Completion:	Amount of Contract:	Dates of Estimate:
Original _____	Original $ _____	From _____
Revised _____	Revised $ _____	To _____

Description of Job:

* Item	Contract Items			This Period		Total To Date	
	Quantity	Unit	Unit Price	Quantity	Amount	Quantity	Amount

FINAL PAYMENT ESTIMATE

(Number)

SUMMARY		
	This Period	Total To Date
Amount Earned	$	$
Amount Retained	$ (-)	$ (-)
Previous Payments	xxxxxxxxxxxxxxxxxxxx	$ (-)
Amount Due for Payment	$	$

Estimated Percentage of Job Completed: _____ %

I hereby certify that to the best of my knowledge and belief, the quantities sho
in the estimate have been completed, are correct, and have not been shown in previous
estimates.

Requested by Contractor: _____ (Signa

_____ _____ (Title

(Construction Company)

Reviewed by Engineer: _____ (Sign

_____ _____ (Ti

(Engineering Firm)

Accepted by Owner: _____ (S

_____ _____ (T

(Owner)

STATE OF OREGON

SEAL

PUBLIC WORKS CONTRACTOR WAGE CERTIFICATION

NAME AND ADDRESS OF CONTRACTOR OR SUBCONTRACTOR	DATE OF CERTIFICATION
	CERTIFICATE FOR PERIOD ENDING

DESCRIPTION AND LOCATION OF WORK	CONTRACT NUMBER	FOR OFFICE USE ONLY

INSTRUCTIONS:

1. Oregon Law (ORS 279.348 - 279.356) specifies that no payment may be made on public work contracts unless the contractor or subcontractor, or surety, provides a certificate stating the hourly rate of wages paid to the workmen; and also certifying that such rate is not below the prevailing rates for the locality as determined by the Commissioner of the Bureau of Labor. This form is required in making such certification.
2. Submit this completed form in duplicate before the first payment, each time the prevailing wage rate changes, and before the final payment. (Note: Prevailing rates generally change on July 1 of each year.)
3. List below each craft employed by you and the hourly rate paid. It is not necessary to list each employe. Supervisory and office personnel or other workmen on regular monthly or per diem salary need not be listed.
4. Complete the affidavit on this form and have it notarized.

TRADE OR OCCUPATION CLASSIFICATION	BASIC HOURLY RATE	FRINGE BENEFITS PAYMENTS				
		H&W	PENSIONS	VAC. & HOLIDAY	APP. OR TR.	OTHERS

TRADE OR OCCUPATION CLASSIFICATION	BASIC HOURLY WAGE	FRINGE BENEFITS PAYMENTS				
		H&W	PENSIONS	VAC. & HOLIDAY	APP. OR TR.	OTH

APPRENTICE NAME	TRADE	PERIOD	BASIC HOURLY RATE	H&W	PENSIONS	VAC. & HOLIDAY	APP. OR TR.	OT

OVERTIME PROVISIONS

Before payment is made of any sum due on account of a contract for a public work, the state treasurer or the treasurer of the county, city, district, authority, public corporation or entity or of any of their instrumentalities organized and existing under charter or law, or other officer charged with the disbursement of funds applicable to the contract under and pursuant to which payment is made, shall require the contractor or his surety and every subcontractor or his surety to file a statement in writing in form prescribed by the State Labor Commissioner, certifying the hourly rate of wage paid each classification of workmen employed by him upon such public work, and further certifying that no workman employed by him upon such public work has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract, which certificate and statement shall be verified by the oath of the contractor or his surety or subcontractor or his surety that he has read such statement and certificate and knows the contents thereof and that the same is true to his knowledge.

AFFIDAVIT

Being first duly sworn, I hereby certify that the hourly rate of ... shown on this form was paid each classification of workmen employ... me (my principal) upon the public work project specified ... further certify that no workmen employed by me (my principal) ... said public work has been paid less than the prevailing rate of ... less than the minimum hourly rate of wage specified in the contr... said public work. I have read this statement and certificate and ... contents thereof and the same is true to my knowledge.

SIGNATURE | TITLE

☐ CONTRACTOR ☐ SUBCONTRACTOR ☐ CONTRACTOR'S SURETY ☐ SUB... TORS

SUBSCRIBED AND SWORN TO BEFORE ME

NOTARY PUBLIC

DATED | COMMISSION EXPIRES

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

SECTION I

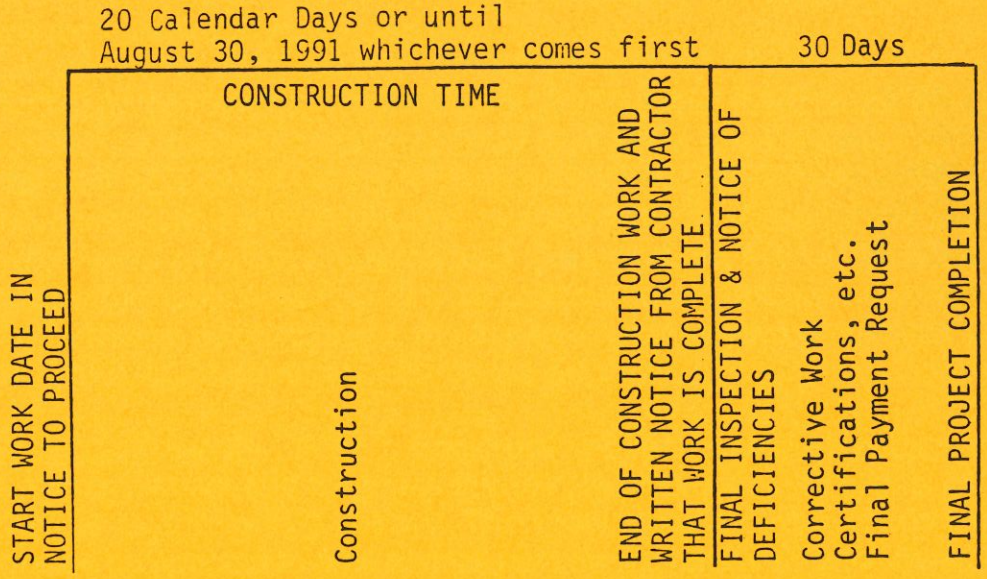
SPECIAL CONDITIONS

A. GENERAL SCOPE OF WORK

The Owner intends to reconstruct certain existing city streets, approximately 1,300 lineal feet of Birch Street and 500 lineal feet of South 14th Avenue. The Owner will perform the excavation work required to construct the street subgrade. In addition, the Owner will furnish, place, compact and rough grade aggregate base rock. Under this contract the Contractor shall furnish, place, and compact any additional aggregate base surface within specified tolerances. Also, the Contractor shall furnish, place, compact and fine grade the base rock for the street section and surface rock for the shoulders. Included in the shoulder rock work is the excavation, grading, compaction, and cleanup of the shoulder subgrade.

The Bid contains three alternatives for asphalt surfacing; Alternative - A, 2-inch Hot-Mix Asphalt Concrete Pavement; Alternative - B, 2-inch Emulsified Asphalt Concrete Pavement; Alternative - C, Emulsified Asphalt Oil Mat. The Owner will select one of the bid alternatives prior to awarding a contract. The Contractor shall construct the selected alternative in accordance with the Drawings and the applicable sections of the Technical Specifications - Road Work. In addition, the Contractor shall perform the other miscellaneous work called for on the Drawings and as specified.

B. PROJECT SCHEDULE



TECHNICAL SPECIFICATIONS

SECTION I

SPECIAL CONDITIONS

The Contractor shall commence the work required in the Contract Documents within 10 calendar days after the date of issuance of the Notice to Proceed.

The Contractor will be allowed a maximum of 20 calendar days, after the Contractor first commences work or until August 30, 1991, whichever comes first, to complete all construction work, certify to the Engineer in writing that the work is complete, and request a final inspection. The Contractor will then have 30 calendar days after receipt of the report from the Engineer specifying any particulars in which the work is unsatisfactory to perform any corrective work, submit certificates of compliance, etc.

It should be clearly understood that construction work shall be completed within the time allowed for construction and all paperwork, etc., shall be completed and approved within the additional 30-day period. Liquidated damages will be assessed if either or both conditions are not satisfied for any phase by the Contractor. The time allowed for construction will include miscellaneous change orders up to 5 percent of the total bid amount without any increase in the contract time.

Prior to starting work, the Contractor shall submit a detailed construction schedule to the Engineer as required in the General conditions.

C. COOPERATION WITH AREA RESIDENTS

The Contractor shall cooperate with the residents and business owners in the area to provide good access to private property whenever possible. Sidewalks shall be kept clear at all times of any construction materials. Barricades, traffic cones, blinkers, and signing shall be used to direct the public through the work area safely. (See General Conditions.)

TECHNICAL SPECIFICATIONS

SECTION II

ROAD WORK

A. GENERAL

These Specifications cover the construction, reconstruction and overlaying of streets and roads. Work shall include furnishing all equipment, materials, labor, etc., as required to complete the required improvements. Items specified in this Technical Specification are intended to be broad in scope and may not always apply to all items of work to be constructed. All applicable sections, as determined by the Engineer, shall control the work outlined in the Contract Documents.

B. EARTHWORK (By Owner)

1. General. On this project the Owner will be performing the excavation work required to construct the subgrade in preparation for placement of aggregate base rock.

2. Clearing and Grubbing. Clearing and grubbing shall include the removal and disposal of any obstructions, such as existing curbs, sidewalks, pavement, culverts, fences, etc., and organic material such as trees, tree stumps, brush, hedges, vegetation, roots, rubbish, posts, fences, topsoil, and any other obstacles or materials in the construction area which would prevent completing the project,and which are unsuitable for road work construction.

All vegetation and rubbish shall be removed and disposed of by the Contractor in conformance with the requirements of local authorities controlling air pollution and solid waste disposal.

3. Roadway Excavation. Prior to any excavation, the area to be excavated shall be cleared and grubbed. Roadway excavation shall consist of the excavation, haul, and satisfactory disposal of all materials taken from within the right-of-way for the construction of embankments, subgrade, shoulders, intersections, ditches, waterways, entrances, approaches (including excavation at private entrances outside the right-of-way), curbs, sidewalks, and incidental work, in accordance with the Technical Specifications and the lines, grades, and cross sections shown on the Drawings, and as required by the Engineer.

4. Embankments. Prior to construction of any embankment, the area beneath the embankment and the areas from which embankment material will be obtained shall be cleared and grubbed. The existing soil beneath the embankment shall then be compacted to 90% of maximum density as determined by ASTM D-698 for

a minimum of six inches below ground surface. Any unsuitable material shall be removed prior to placement of any embankment.

Upon completion of the embankment foundation, embankment material shall be placed in horizontal lifts and compacted to 95% of ASTM D-698 density. Embankment lift depth shall not exceed the capability of compaction equipment being used to achieve the required compaction for the full depth of each lift. The embankment material shall be native or import free of vegetative or organic matter, boulders 6" or larger in diameter, or frozen material and shall be at or below optimum moisture content at the time of placement.

The embankment shall be brought to the lines and grade required on the Drawings and as established by the Engineer. Any unsuitable material which may have been used in constructing the embankment shall be removed and replaced with suitable material and compacted at no cost to the Owner.

5. Roadbed Cuts. In roadbed cuts, the subgrade material shall be compacted to 95% of maximum density as determined by ASTM D-698 for a minimum of 6" below the top of the subgrade. Depending on the type of material encountered, the Contractor may have to scarify, aerate or water, overexcavate, or take other actions as necessary to achieve the required compaction.

6. Finishing of Subgrade. All roadbeds, ditches, and other excavations and embankments shall be trimmed accurately to the lines, grades and cross sections as shown on the Drawings and established by the Engineer and shall be finished in a thoroughly workmanlike manner to within plus or minus 0.05 foot of the required grade. They shall be in neat and well finished condition at the time the project is completed. The entire right-of-way area shall be cleaned up and made free of debris and foreign matter of all kinds. Accumulations of dirt and/or other materials shall be disposed of in a manner satisfactory to the Engineer.

Upon completion of the subgrade and prior to placement of the aggregate base rock, the Owner shall load test the finished subgrade surface. The load test shall consist of slowly driving a loaded dump truck over the road surface. The dump truck shall have a minimum capacity of 10 cubic yards. All soft areas shall be noted. The Engineer and Owner shall note any soft areas. The Owner shall excavate out and either replace unsuitable material or properly compact all soft areas in order to provide a firm base that conforms to the Specifications.

C. AGGREGATE BASE ROCK, BASE ROCK, AND SURFACE ROCK

1. Scope. Aggregate base rock, base rock, and surface rock shall be placed to the lines, depths, and grades shown on the Drawings. On this project, the Owner will be responsible for furnishing, placement, rough grading and compaction of the aggregate base rock to within plus or minus 0.2 foot of the aggregate base rock grade. The Contractor shall perform all fine grading of the aggregate base rock surface and shall furnish, place, compact and fine grade all additional aggregate base rock to within plus 0.1 foot to minus 0.1 foot of aggregate base rock grade. Prior to placement of materials, each succeeding lift, i.e., subgrade, aggregate base, base, etc., shall be properly constructed and reviewed by the Engineer.

The Contractor shall furnish, place, compact, and grade all base rock and surface rock as shown on the Drawings. The surface rock work on the shoulders shall include all preparatory grading, trimming, and excavation of the subgrade required prior to placement of the surface rock.

2. Materials.

a. General. All aggregate materials for aggregate base rock, base rock, and surface rock, unless called for otherwise, shall meet the following requirements:

Percent Wear (AASHTO T-96)	40% Maximum
Durability Index Coarse and Fine	35% Maximum

b. Aggregate Base Rock. The aggregate base rock shall be a well-graded 4"-0 crushed or uncrushed basalt material with the fraction passing the #200 sieve not greater than 8 percent of the total aggregate weight. Other materials may be considered by the Engineer; however, samples must be submitted for review.

c. Base Rock. Base Rock shall be crushed and shall conform to the requirements of Section 703.07 Standard Specifications for Highway Construction, Oregon State Highway Division, 1984 Edition. The Contractor shall have the option of using 1 1/2"-0, 1"-0, or 3/4"-0 base rock unless designated otherwise on the Drawings.

d. Surface Rock. The surface rock shall be crushed stone, slag, or gravel meeting the following requirements:

Liquid Limit (AASHTO T-89)	35 Maximum
Plastic Index (AASHTO T-90)	2-9 Maximum
Dust Ratio $\frac{\%\text{ Passing No. 200}}{\%\text{ Passing No. 30}}$	2/3 Maximum

Grading Requirements (AASHTO T-11 and T-27)

Sieve	Percent Passing
1"	100
3/4"	70-98
#4	36-60
#8	25-47
#30	12-31
#200	8-15

Surface rock shall have at least 70 percent by weight of the particles retained on the #4 sieve and shall have at least two fractured faces.

3. Materials Certification and Testing. The Contractor shall submit samples of the material to be utilized on the project to the Engineer for his review. The Contractor shall also submit copies of appropriate test data that demonstrates that the materials meet the suitability requirements of the Specifications. The Contractor will be responsible for performing quality control testing during the production of the aggregate materials and for providing certification to the Engineer that the materials meet the requirements of the specifications. The Engineer may take samples of the aggregate materials for testing to verify compliance with the requirements of the Specifications. Materials found to be outside of the specification limits shall be replaced with suitable material at no expense to the Owner.

4. Construction. The construction procedure here described shall be understood to apply to each of the courses and/or layers of which the road base is to be constructed. The construction of the road base shall not be limited to the

construction of the main roadway to which the contract applies, but shall include the construction of base on approach roads, driveways, connecting roads and connecting streets as shown on the Drawings. After the subgrade is brought to the proper line, cross section and compaction, the aggregate materials shall be spread and shaped as required. The spreading and shaping of the aggregate materials shall be so performed as to prevent separation of the coarser material from the finer materials including the use of adequate water. The aggregate materials shall be brought to proper moisture content as required for compaction and compacted to 95% of maximum density as determined by ASTM D-1557. The finished surface when tested with a 10-foot straightedge shall not vary from the testing edge by more than 0.05 foot at any point. Following construction of each lift, the Contractor shall do such blading, brooming, watering and other work as necessary to prevent ravelling and rutting. These operations are to be continued as required until the lift is covered by a following lift or until all work to be done under the contract is completed. If the required compacted depth of the base exceeds 6 inches, it shall be constructed in two or more lifts, each lift not exceeding 6 inches in depth.

Upon completion of the aggregate materials and prior to placement of asphalt concrete pavement, the Contractor shall load test the finished base surface. The load test shall consist of slowly driving a loaded minimum 10 yard dump truck over the road surface. All soft areas shall be noted. The Contractor shall excavate and/or compact all soft areas in order to provide a firm base that conforms to the requirements of the Technical Specifications. If the soft areas are not the fault of the Contractor's work then a change order shall be negotiated to cover the cost of this extra work.

D. SOIL STERILANT

Upon completion of the gravel shoulders the Contractor shall apply a soil sterilant to the surface of the surface rock along the shoulders. The sterilant shall be Pramitol 5SP as manufactured by CIBA-GEIGY, Spike 80W as manufactured by Elanco Products Company, or approved equal and shall be applied in accordance with the manufacturer's or suppliers recommendations to adequately sterilize the base. The Contractor shall supply the Engineer with a description of the sterilant and the name of the supplier prior to application in order that the suitability of the proposed product may be verified. The applicator shall be licensed by the State of Oregon for the class of herbicide utilized. Any damage to adjacent areas caused by the sterilant shall be repaired by the Contractor at no expense to the Owner.

E. HOT-MIX ASPHALT CONCRETE PAVEMENT (Bid Alternative - A)

1. Scope. After completion of the base rock, the Contractor shall place and compact one or more lifts of hot-mix asphalt concrete to the lines, grades, thicknesses, and cross-sections shown on the Drawings and as established by the Engineer. The asphalt concrete shall consist of a hot mixture of asphalt cement, well graded high quality aggregate, mineral filler and adhesive as required. It shall be plant mixed into a uniformly coated mass, hot laid on a prepared foundation and compacted to the specified density.

At least one week before paving is scheduled to begin, the Contractor will set up a prepaving meeting between the Contractor and the Engineer. If a paving Subcontractor is being used they shall also be present. The intent of the meeting is to allow the Engineer and the Contractor to jointly review the proposed method of operation, equipment, personnel, mix, schedule, etc., along with the project specifications.

2. Materials. Except as specified herein, the materials for asphalt concrete shall be provided in conformance with Sections 403.11 through 403.14 and 703.08 of the "Standard Specifications for Highway Construction", Oregon State Highway Division, 1984 edition. Recycled materials shall not be used unless prior approval is obtained from the Engineer. A mix design meeting the requirements of a Class "C" asphalt concrete shall be used unless otherwise specified or approved.

The Contractor shall submit to the Engineer a copy of an asphalt concrete mix design prepared by a qualified materials testing laboratory at least 15 days prior to the placement of any asphalt concrete. This mix design shall be prepared according to ASTM D-1559 (Marshall method) and shall incorporate the actual materials to be used on this project.

The following criteria shall be used in establishing the mix design.

Compaction, number of blows each end of specimen	50
Asphalt Cement	AR-4000W
Stability (lbs.)	1,000 Min.

Flow (0.01 inch)	8-18
Percent Air Voids	3-5
Percent Voids in Mineral Aggregate (MVA)	14 Min.
Retained Strength * (as determined by AASHTO T-165)	70%

* If additives are used to meet the above requirements, they shall be standard recognized products. They shall have no deleterious effect on the asphalt material and shall be completely miscible. The use of silicones will not be allowed.

The mix design report shall include the following:

1. Recommended mixing and placement temperature ranges for the mix.

2. A recommended gradation and tolerance band.

3. A recommended asphalt content.

4. A graphical plot of the following:

   a) Stability vs. asphalt content.
   b) Flow vs. asphalt content.
   c) Unit weight of total mix vs. asphalt content.
   d) Percent air voids vs. asphalt content.
   e) Percent voids in mineral aggregate vs. asphalt content.

5. Theoretical maximum density (Rice method) for each trial point and at the recommended asphalt content.

6. Data demonstrating the suitability of the aggregate.

7. A manufacturer's certification on the asphalt cement.

The use of a previously used mix design based on the Marshall Method will be allowed if the Contractor can verify to the satisfaction of the Engineer that the same materials will be used for this project, the above listed criteria were met, and the above listed information is included in the mix design report. Copies of the results of tests made on the mix during production shall also be submitted if any are available.

The use of a previously used asphalt concrete mix design prepared according to ASTM 1560 and 1561 (Hveem method) will also be considered by the Engineer in lieu of the Marshall method if the following requirements are met:

1. The Contractor can verify to the satisfaction of the Engineer that the same materials used in the mix design will be used on this project.

2. The minimum stabilimeter value of the mix is at least 30.

3. The swell of the mix is less than 0.030 inches.

4. The mix design was prepared by a qualified materials testing laboratory.

5. The recommended mixing and placement temperature ranges are included.

6. The recommended gradation and tolerance band is included.

7. The recommended asphalt content is included.

8. The theoretical maximum density (Rice method) for each trial point and at the recommended asphalt content is included.

9. Data verifying the suitability of the aggregate is included.

The use of a mix prepared according to the Hveem method will only be considered on previously prepared mix designs. Any new mix design shall be prepared according to the Marshall method.

3. Construction.

a. Weather Limitations. Asphalt concrete plant mix shall be placed on properly prepared surfaces. The air temperature and the surface temperature shall be no less than those specified in the following table.

SURFACE TEMPERATURE LIMITATIONS

Compacted Thickness of Individual Courses	Wearing Course	Leveling and Base Course
Less than 1 1/2"	60°F	55°F
1 1/2" to 2"	50°F	45°F
Over 2 1/2"	40°F	35°F

Placement during rain or other adverse weather conditions normally will not be permitted, except when approved by the Engineer and only when the mix is in transit at the time these adverse conditions occur. Under these conditions the mix may be laid if the mix is at a proper temperature, if the mix has been covered during transit, and if the mix is to be placed on a foundation free from pools or flow of water. Should the Contractor proceed with his paving operation knowing that adverse weather is predicted the Contractor will proceed at his own risk and shall assume all losses associated with the work stoppage due to improper weather.

b. Hauling Equipment. Vehicles used for hauling asphalt concrete mixes shall have tight clean smooth metal beds which have been thinly coated with a minimum amount of paraffin oil, lime solution, soapy water, or other approved material to prevent the mixture from adhering to the beds. Vehicles which cause excessive segregation, which leak badly, which are contaminated with material other than asphalt cement, or which delay normal operations shall not be used. All hauling vehicles shall be supplied with canvas tarps to cover the mix. All asphalt concrete loads shall be covered during transport, unless otherwise approved by the Engineer.

c. Asphalt Concrete Pavers. Asphalt concrete pavers shall be self-contained, power propelled units provided with an activated screed or strike-off assembly, heated if necessary, and capable of spreading and finishing lifts of asphalt concrete plant mix material in lane widths applicable to the specified typical sections and to required thicknesses, lines, grades, and cross-sections. The paver shall be equipped with a receiving and distribution system of sufficient capacity for a uniform spreading operation and shall be capable of placing the mixture uniformly in front of the screed without segregating the materials. The paver shall be designed to compensate for minor irregularities of the base on which it is supported that such will not be reflected immediately in the surface of the lift being placed. The weight of the paver shall be supported on tracks or wheels, none of which shall contact the mixture being laid. The contact area of the screed or strike-off assembly shall be uniform over the entire width of the mixture being placed. The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture.

d. Compactors. Rollers shall be steel-wheeled, pneumatic tired, vibratory, or a combination of these types, as the Contractor may elect. They shall be in good condition capable of reversing without backlash and shall be operated at speeds slow enough to avoid displacement of the asphalt concrete mixture. Weight of rollers shall be sufficient to compact the mixture to the required density while it is still in a workable condition. As a minimum, steel wheel rollers must weigh a minimum of 10 tons and must be capable of at least 250 pounds per lineal inch of width on the drive or compression wheel, on the surface asphalt. Pneumatic rollers must be capable of exerting a minimum pressure 80 pounds per square inch of tire surface on the asphalt surface. Vibratory rollers must weigh a minimum of 6 tons and shall be equipped with amplitude and frequency controls specially designed for compaction of asphalt mixtures.

e. Existing Structures. All edges of manholes, valve boxes, curbs, existing pavement, etc., that are to be in contact with the new asphalt concrete shall be cleaned and painted or sprayed with a thin tack coat. The material can be an asphalt cement of the same grade as the asphalt concrete, or CRS-1 or CSS-1 emulsified asphalt.

This tack coat is to be applied only far enough in advance as is appropriate to insure a tacky, sticky condition at the time the asphalt concrete comes in contact with the structure. The application of the tack coat shall be done in a neat, workmanlike fashion. Any material inadvertently applied to surfaces away from the paving, such as on sidewalks, exposed sections of curbs, etc., shall be cleaned by the Contractor at no expense to the Owner.

f. Hauling, Spreading, Finishing, and Temperature Control. The temperature of the mixture at the time it is spread into final position shall be within the tolerances set by the mix design, but in no case less than 250°F.

The mixture shall be laid in strips of such widths as to hold to a practical minimum the number of longitudinal joints required. Longitudinal joints in any course shall not occur within the area or width of a traffic or auxiliary lane. On shoulder areas such joints shall occur only at points of change in the transverse slopes as shown on the Drawings. Longitudinal joints in one layer shall offset those in the lift immediately below by a minimum of 6 inches. The maximum compacted thickness for any lift shall be 3 inches, unless otherwise approved by the Engineer.

Except for unavoidable delay or breakdown, delivery of hot asphalt cement mixture to the paving machine shall be at a rate sufficient to provide as nearly continuous an operation of the paving machine as possible. Segregation of materials, slumping loads, non-uniform texture, boils, slicks, fouled surfaces, and other defects in material and workmanship shall be corrected by the Contractor at his own expense.

The internal temperature of the mixture shall not be less than 180°F upon achieving density requirements in accordance with the applicable specifications. Vibratory rollers shall not be used under any circumstances when the internal temperature of the mixture is below 175°F.

g. Compaction. Immediately after the asphalt concrete mixture has been spread, struck off and surface irregularities adjusted, it shall be thoroughly and uniformly compacted to the density specified in the control section which follows. The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks or irregularities and in reasonable conformance with line, grade, and cross section as shown in the plans or

as established by the Engineer.

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking or shoving occurs. All compaction equipment units shall be operated at the speed, within specification limits, that will produce the required compaction. Areas inaccessible to specified compaction equipment shall be compacted by mechanical or hand tampers. Any asphalt concrete that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced at no additional cost with fresh hot mix which shall be immediately compacted to conform with the surrounding area.

Final rolling shall be performed with tandem steel wheel rollers. Rollers shall move at a slow but uniform speed with the drive rollers or wheels nearest the paver. Normally rolling shall begin at the sides and proceed longitudinally parallel to the road centerline, each trip overlapping one-half the roller width, gradually progressing to the center. On super-elevated roadway sections the rolling shall begin at the low side and progress to the high side, each trip overlapping one-half the roller width. When paving against a previously placed lane, the longitudinal joint shall be rolled first, followed by the regular rolling procedure. Rollers shall not make sharp turns on the course being compacted and then shall not be parked on the hot asphalt mixture. Alternate trips of a roller shall terminate in stops at least 5 feet distant longitudinally from the adjacent preceding stops.

When using static steel-wheeled or pneumatic-tired rollers to roll longitudinal joints, only 4 to 6 inches of the roller width shall ride on the newly-placed lane on the first pass. The bulk of the width shall ride on the previously compacted side of the joint. In each subsequent pass, more and more of the roller width shall be allowed onto the fresh mat, until the entire width is on the new mixture. With vibratory rollers, the roller drums shall be extended only 4 to 6 inches onto the previously compacted lane with the rest of the drum width riding on the newly placed mixture. The roller shall continue to move along this line until a thoroughly compacted, neat joint is obtained.

h. Transverse Joints. Placing of the asphalt concrete mixture shall be as continuous as possible. Rollers shall not pass over the unprotected end of freshly laid mixture unless the end will be subjected to traffic. In that case the end shall be made to or left at a bevel of approximately 50:1 (horizontal to vertical). Transverse joints shall be formed by cutting back on the previous run to expose the full depth of the lift. An asphalt tack coat shall be applied on contact surfaces just before fresh mixture is placed against the previously rolled mixture. At bridge ends or ends of other rigid type structures, compacting shall be in transverse direction as well as longitudinally.

i. Longitudinal Joints. The Contractor shall take special precautions when constructing longitudinal joints to insure that the two mats are properly bonded together and a smooth surface is provided. If possible, the Contractor shall schedule his operations so that all longitudinal joints are constructed when the mats are still hot (above 180°F).

When the adjacent mat is allowed to cool, the Contractor shall clean the joints and provide a tack coat of asphalt cement or CRS-1 or CSS-1 emulsified asphalt. The paving screed should be set to overlap the first mat by 1 to 2 inches and the elevation set to equal the amount of roll down expected during compaction of the new mat. The coarser aggregate shall be raked away from the joint, allowing the finer material to be compacted into the joint.

j. Surface Tolerances. The top surface of each lift shall closely parallel that specified for the top surface of the finished pavements. The surface of each lift shall be tested by the Engineer for trueness to specified grade and transverse slope at selected locations. Testing, if done, will be with a 10-foot straightedge. Variation of the surface from the testing edge of the straightedge between any two contact points with the surface shall at no point exceed 0.02 foot on an underlying lift and 0.015 foot on the top lift.

k. Special Protection Under Traffic. No traffic or equipment shall come in contact with the compacted mixture until it has cooled and set sufficiently to prevent marking; edges shall be protected from being broken down; edge drop-offs one or more inches in height shall be marked with warning devices visible by day and night to traveling public at spacing sufficiently close to indicate the alignment and location of the hazard if open to traffic.

F. COMPACTION AND TESTING OF HOT-MIX ASPHALT CONCRETE PAVEMENT (Bid Alternative - A)

1. Compaction Density Requirements. Asphalt concrete shall be compacted to a minimum of 92% of the maximum theoretical density (ASTM D-2041) as determined by the approved project mix design. At the option of the Engineer, a running average of the maximum theoretical density as determined on samples taken from the project may be used instead of that determined by the project mix design. Test for compliance shall be determined by taking at least three 4-inch cores from maximum 2,000 sq. yd. test lot, and determining in-place density of the cores according to ASTM D-2726. The average density of the cores shall be 92% of the maximum theoretical density, with no individual density less than 90%.

As an alternative to the compaction requirements above, the Engineer may, but shall not be required to, utilize a nuclear gauge and test strip to establish a target density for quality control. A description of the procedure to establish target density is described hereafter. When a nuclear gauge is utilized, a minimum of five (5) random nuclear gauge tests shall be run on a maximum 2,000 sq. yd. test lot. The average of these tests shall be at least 98% of the target density as determined on a test strip, with none of the tests less than 95%. The Contractor will cooperate with the Engineer during the initial startup of the paving operation to set up the test strip used in determining the target density. If the test results in any lot fail to meet the required target density, or, if in the opinion of the Engineer, there is reason to suspect the density in any lot, the Engineer will take at least three 4-inch diameter cores from each of the suspect lots and determine the in-place density according to ASTM D-2726. The density shall comply with requirements of the first paragraph of this section. Any payment adjustment, if applied, will be based solely upon the results of core samples taken and not upon the results of the nuclear gauge test.

The Engineer may, however, accept the asphalt concrete compaction solely upon the results of the nuclear gauge test if, in his opinion, acceptable compaction has been achieved. If the Engineer determines that core samples are necessary to determine whether proper compaction has been achieved, he may do so. The cost of taking and testing core samples will be paid for by the Owner if the required compaction has been achieved. If the required 92% of the maximum theoretical density has not been achieved, the cost of taking and testing the cores and any retesting shall be paid for by the Contractor. The cost incurred by the Owner in testing may be deducted from payments due the Contractor.

2. Payment Adjustment Schedule. If the cores show the density to be below the required 92%, the following payment adjustment schedule will be applied for each test lot having low densities:

Average % of Specified Density (ASTM D-2041)	% of Specified Payment
92% and above	100
90 - 91.9	95
89 - 89.9	90
88 - 88.9	80
Below 88	Replace Material

If the average percent compaction is acceptable and one test falls below the minimum in any given lot, the Engineer and Contractor will review the problem area in the field and a solution will be agreed upon, at no cost to the Owner.

Additionally, the pavement thickness shall be determined based on cores taken from the mat. Should the pavement thickness be less than that required, a reduction in the unit bid price will be made as follows for each lot having the inadequate thickness.

* Average % of Specified Thickness	% of Specified Payment
95% and above	100%
85% - 94.9%	actual % of thickness measured less 5%
below 85%	corrective action required

* The average will be made by measuring at least 3 cores for a maximum of 2000 square yard test lots. The actual thickness of each core will be used, except that any core in excess of 1/2-inch greater than design thickness will only be counted as design thickness plus 1/2-inch.

CONTROL STRIP - TARGET DENSITY METHOD
COMPACTION CONTROL OF BITUMINOUS PAVEMENTS
WITH NUCLEAR DENSITY GAUGE

The following is a field test method, whose purpose is to obtain a "Target Density" which will act as the basis for the control of density in compaction of bituminous pavements. The Target Density will be determined by the Engineer. This procedure will be utilized, at the option of the Engineer.

Establish a control strip that is approximately 400 sq. yds. in area. It should be located within and become a portion of the completed roadway paved area. Preferably it should be a portion of a travel lane. The location of the control strip should be typical of the area of roadway for which it will act as the control.

Select an initial test point that is a random spot within the control strip. This point should be located so that it is near the center of a normal roller pass and shall be no closer than 2 feet from the edge of the placed mat. The point should be no closer than 50 ft. from either end of the control strip. The thickness of the mat at this initial point should be at least the specified depth required.

Random test points shall be selected at random within the control strip and should be located so they represent the entire area of the strip. Normally they should be no closer than 2 ft. from the panel edge and no closer than 10 ft. to the ends of the control strip. Usually 10 of these random points should be designated.

The rollers used for compaction of the bituminous material on the control test strip must meet the requirements of the Technical Specifications. Rolling of the control strip shall be performed using a standard rolling pattern in a like manner as will be done on the entire project.

After each roller pass over the Initial Point, a density test is to be performed using a nuclear density gauge. To determine the density select a smooth roller surface area, use a fine sand to fill open surface pores and seat the gauge firmly. A 15 second count is run on backscatter and the wet density recorded. A second 15 second count is then run at the same location. Turn the gauge 90° and run two additional tests for 15 seconds. The density is the average of the four readings. Record the temperature of the A.C. at the time of the density after each roller pass. The temperature should be taken at the midpoint of the mat.

The standard rolling pattern is to be repeated covering the entire control strip area and the density tests repeated after each roller pass over the initial point until such time as no further compaction can be obtained as determined by the testing.

Note: The bituminous mat must be at such a temperature and condition that it is still considered workable when no more compaction can be attained. For most mixes the temperature must be above 180°.

When no more compaction or densification of the bituminous mat can be obtained as indicated by the density readings at the initial point, the rolling shall be discontinued. Density tests shall immediately be made on all of the random test points and an average density shall be determined. The average density of the random test points shall be considered to be the Target Density providing it meets the following criteria:

(i) The average density of the random test points must be at least 98% of or greater than the maximum density of the Initial Point.

(ii) No single density of any random test point shall be less than 95% of the maximum density of the Initial Point.

If the average density of the random test points meets the above criteria, then it is considered to be the Target Density. If the criteria is not met, then another Control Test Strip must be established and the entire sequence repeated.

A new Target Density should be established if -

- A change in mix design is made.
- A change in depth of the mat being placed is made.
- There is a change in aggregate source or character of the material.
- More than a 10-day run has been made. A change in the character of the roadway subgrade, base, etc. which indicates a changed condition has occurred.
- A substantial change in weather or other conditions which could change the

current target value, but with the changed conditions being within allowable specified limits.

G. ASPHALT SEAL COAT (Bid Alternative - A)

After the construction of the asphalt concrete, the Engineer will evaluate the surface to determine whether a fog seal is required. When test results and inspection shows that the Asphalt Concrete meets the minimum requirements of these specifications, but a seal is still needed, then the Contractor shall apply a fog seal consisting of CSS-1 emulsified asphalt mixed with water at a rate of 1 to 1 and applied at a rate to be determined by the Engineer. It is anticipated that this rate will be between 0.05 to 0.20 (0.03 to 0.10 residual) gallons per square yard.

The areas to be sealed shall be dry and free of dirt, dust, leaves, or other foreign matter at the time of placement. After application and initial cure of the emulsified asphalt the Contractor shall apply a light coat of clean fine sand. The sand shall be applied evenly and then broomed across the pavement surface. After approximately 5 days the Contractor shall sweep the street and remove the excess loose sand.

All of this work, a portion of it, or none of it may be performed, depending on the evaluation made by the Engineer.

H. EMULSIFIED ASPHALT CONCRETE PAVEMENT (Bid Alternative - B)

1. Scope. This work shall consist of constructing an emulsified asphalt concrete pavement, choke seal and chip seal. The emulsified asphalt concrete pavement shall be composed of aggregate and emulsified asphalt mixed at a central mixing plant to a uniform mixture, spread on a prepared base and compacted as hereinafter specified. The emulsified asphalt concrete shall be constructed in reasonably close conformity to the lines, grades, thicknesses and cross sections indicated on the Drawings or as requested by the Engineer.

2. Materials.

a. Asphalt. The asphalt used in the emulsified asphalt mix shall be CMS-2, CMS-2S, or CMS-2H as selected by the Contractor in consultation with the Engineer. The asphalt used in the chip seal shall be CRS-1 or CRS-2 as directed by the Engineer. Emulsified asphalt shall conform to the

requirements given in Section 702 of the Oregon State Highway Division "Standard Specifications for Highway Construction - 1984."

b. Aggregate for Emulsified Asphalt Mix. The aggregate to be used in the emulsified asphalt mix shall conform to the requirements of subsection 703.10 of OSHD "Standard Specifications for Highway Construction - 1984". Aggregate will be subject to acceptance preceding addition of asphalt at the mixer. If the Contractor elects to use a mixing plant without screens, a mechanical sampling device shall be provided at some point in the final conveyor to the mixer. Plant mixed mixtures will be subject to final acceptance after blending and mixing, either at the plant or at the place of delivery prior to rolling. Acceptance will be based on periodic sampling of the materials.

c. Aggregate for Chip Seal. The aggregate to be used in the chip seal coat shall conform to the requirements of the section of these Technical Specifications entitled "Emulsified Asphalt Chip Seal".

d. Aggregate for Choke Seal. The aggregate to be used in the choke seal shall be clean fine sand free of clay, loam and other extraneous material, which passes a 1/4-inch sieve.

e. Proportioning of Mix. The emulsified asphalt concrete mixture shall be comprised of aggregate and emulsified asphalt in the proportions established by the Contractor's mix design. The emulsified asphalt content shall be approximately 6% (by weight) or as otherwise determined. The Contractor shall proportion into the mix a sufficient amount of asphalt to fully coat (100%) all of the aggregate particles. Anti-stripping agent shall be used if required.

3. Construction.

a. Weather and Seasonal Limitations. Emulsified asphalt concrete plant mix shall be placed on properly prepared surfaces and shall not be placed on any wet surface. The air temperature and the surface temperature in the shade shall not be less than 60°F. Should the Contractor proceed with his paving operation knowing that adverse weather is predicted, the Contractor will proceed at his own risk and shall assume all losses associated with the work stoppage due to improper weather. The Contractor shall not place

emulsified asphalt concrete before July 1 of after September 15 unless approved otherwise by the Engineer.

b. Mixing Plant. The emulsified asphalt mixture shall be mixed at a centrally located plant of the batch type, continuous mixing type or drum mix type, capable of providing a mix of aggregate and asphalt of uniform proportions and consistency as specified.

Mixing plants shall be equipped with a positive control to synchronize the aggregate and asphalt feed in a manner that will maintain a constant ratio of asphalt to aggregate. The mixer shall be equipped with facilities determined by the Engineer as adequate for calibrating gate openings and metering devices by weighing check samples, and for the taking of representative samples.

The aggregate may be proportioned by either weight or volume and the asphalt may be proportioned by either weight or metering. The equipment shall be capable of feeding and maintaining a constant ratio of aggregate feed within a tolerance of plus or minus 5% (by weight) of the designated amount and a constant rate of asphalt feed within plus or minus 0.5% (by weight) of the designated amount.

The charging of materials into the mixer shall be by means whereby the quantities of the several materials are accurately controlled. Mixers shall be charged and operated at not more than 80% of their rated capacity. Mixing shall continue until the aggregate has been fully (100%) coated the asphalt and a uniform and homogeneous mixture of aggregate and asphalt has been obtained. The temperature of the emulsified asphalt cement upon entry into the mixture shall not exceed 160°F.

c. Hauling Equipment. Vehicles used for hauling asphalt concrete mixes shall have tight clean smooth metal beds which have been thinly coated with a minimum amount of paraffin oil, lime solution, soapy water, or other approved material to prevent the mixture from adhering to the beds. Vehicles which cause excessive segregation, which leak badly, which are contaminated with material other than asphalt cement, or which delay normal operations shall not be used.

d. Asphalt Concrete Pavers. Asphalt concrete pavers shall be self-contained, power propelled units provided with an activated screed or strike-off assembly, heated if necessary, and capable of spreading and finishing lifts of asphalt concrete plant mix material in lane widths applicable to the specified typical sections and to required thicknesses, lines, grades, and cross-sections. The paver shall be equipped with a receiving and distribution system of sufficient capacity for a uniform spreading operation and shall be capable of placing the mixture uniformly in front of the screed without segregating the materials. The paver shall be designed to compensate for minor irregularities of the base on which it is supported that such will not be reflected immediately in the surface of the lift being placed. The weight of the paver shall be supported on tracks or wheels, none of which shall contact the mixture being laid. The contact area of the screed of strike-off assembly shall be uniform over the entire width of the mixture being placed. The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture.

e. Preparation of Foundations. The Contractor shall place leveling courses of emulsified asphalt concrete on existing pavements prior to construction of the emulsified asphalt concrete pavement. The leveling work shall be performed at the locations and to the extent designated by the Engineer. Leveling material shall be spread by means of a paving machine except in small incidental areas as determined by the Engineer where a blade grader or other suitable equipment may be permitted.

f. Existing Structures. All edges of manholes, valve boxes, curbs, existing pavement, etc., that are to be in contact with the new asphalt concrete shall be cleaned and painted or sprayed with a thin tack coat of emulsified asphalt cement.This tack coat is to be applied only far enough in advance as is appropriate to insure a tacky, sticky condition at the time the asphalt concrete comes in contact with the structure. The application of the tack coat shall be done in a neat, workmanlike fashion. Any material inadvertently applied to surfaces away from the paving, such as on sidewalks, exposed sections of curbs, etc., shall be cleaned by the Contractor at no expense to the Owner.

g. Hauling, Spreading, and Finishing. The mixture shall be laid in strips of such widths as to hold to a practical minimum the number of longitudinal joints required. Longitudinal joints in any course shall not occur within the area or width of a traffic or auxiliary lane. On shoulder areas such joints shall occur only at points of change in the transverse slopes as shown on the Drawings. Longitudinal joints in one layer shall offset those in the lift immediately below by a minimum of 6 inches. The maximum compacted thickness for any lift shall be 3 inches.

Except for unavoidable delay or breakdown, delivery of emulsified asphalt mixture to the paving machine shall be at a rate sufficient to provide as nearly continuous an operation of the paving machine as possible. Segregation of materials, slumping loads, non-uniform texture, boils, slicks, fouled surfaces, and other defects in material and workmanship shall be corrected by the Contractor at his own expense.

h. Compaction. Immediately after the asphalt concrete mixture has been spread, struck off and surface irregularities adjusted, it shall be thoroughly and uniformly compacted. To prevent pavement creep, the outer edge(s) of each strip of pavement shall be rolled first unless otherwise directed by the Engineer. The mixture shall be compacted with tandem steel wheel rollers having a minimum gross weight of ten tons and a minimum weight of 250 pounds per inch on the drive wheel. Each layer of the pavement shall be compacted with at least four coverages by the roller and such additional coverages as the Engineer may direct. The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks or irregularities and in reasonable conformance with line, grade, and cross section as shown on the Drawings or as established by the Engineer.

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking or shoving occurs. All compaction equipment units shall be operated at the speed, within specification limits, that will produce the required compaction. Areas inaccessible to specified compaction equipment shall be compacted by mechanical or hand tampers. Any asphalt concrete that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced at no additional cost with fresh mix which shall be immediately compacted to conform with the surrounding area.

Final rolling shall be performed with tandem steel wheel rollers. Rollers shall move at a slow but uniform speed with the drive rollers or wheels nearest the paver. Normally rolling shall begin at the sides and proceed longitudinally parallel to the road centerline, each trip overlapping one-half the roller width, gradually progressing to the center. On super-elevated roadway sections the rolling shall begin at the low side and progress to the high side, each trip overlapping one-half the roller width. When paving against a previously placed lane, the longitudinal joint shall be rolled first, followed by the regular rolling procedure. Rollers shall not make sharp turns on the course being compacted and then shall not be parked on the asphalt mixture. Alternate trips of a roller shall terminate in stops at least 5 feet distant longitudinally from the adjacent preceding stops.

When using static steel-wheeled to roll longitudinal joints, only 4 to 6 inches of the roller width shall ride on the newly-placed lane on the first pass. The bulk of the width shall ride on the previously compacted side of the joint. In each subsequent pass, more and more of the roller width shall be allowed onto the fresh mat, until the entire width is on the new mixture. With vibratory rollers, the roller drums shall be extended only 4 to 6 inches onto the previously compacted lane with the rest of the drum width riding on the newly placed mixture. The roller shall continue to move along this line until a thoroughly compacted, neat joint is obtained.

i. Transverse Joints. Placing of the asphalt concrete mixture shall be as continuous as possible. Rollers shall not pass over the unprotected end of freshly laid mixture unless the end will be subjected to traffic. In that case the end shall be made to or left at a bevel of approximately 50:1 (horizontal to vertical). Transverse joints shall be formed by cutting back on the previous run to expose the full depth of the lift. An asphalt tack coat shall be applied on contact surfaces just before fresh mixture is placed against the previously rolled mixture. At bridge ends or ends of other rigid type structures, compacting shall be in transverse direction as well as longitudinally.

j. Longitudinal Joints. The Contractor shall take special precautions when constructing longitudinal joints to insure that the two mats are properly bonded together and a smooth surface is provided. If possible, the Contractor shall schedule his operations so that all longitudinal joints are constructed when the mats are still fresh.

When the adjacent mat is allowed to cool, the Contractor shall clean the joints and provide a tack coat of emulsified asphalt. The paving screed should be set to overlap the first mat by 1 or 2 inches and the elevation set to equal the amount of roll down expected during compaction of the new mat. The coarser aggregate shall be raked away from the joint, allowing the finer material to be compacted into the joint.

k. Surface Tolerances. The top surface of each lift shall closely parallel that specified for the top surface of the finished pavements. The surface of each lift shall be tested by the Engineer for trueness to specified grade and transverse slope at selected locations. Testing, if done, will be with a 10-foot straightedge. Variation of the surface from the testing edge of the straightedge between any two contact points with the surface shall at no point exceed 0.03 foot.

l. Choke Seal. Immediately after placing each layer of the mixture and at such other times as directed by the Engineer, the Contractor shall place choke seal aggregate at a rate of approximately .003 cubic yard per square yard. Additional material may be added at the direction of the Engineer. Excess aggregate shall be disposed of by brooming or other means as directed by the Engineer.

m. Chip Seal. After the mixture has been placed and has cured a minimum of two weeks, a chip seal consisting of 1/4" - No. 10 aggregate and CRS-1 or CRS-2 emulsified asphalt shall be applied to the entire surface. The seal shall be applied in accordance with the applicable portions of the section of these Technical Specifications entitled "Emulsified Asphalt Chip Seals) at the rate of 0.26 gallons per square yard for emulsified asphalt and 0.006 cubic yards (truck measure) per square yard for 1/4" - No. 10 aggregate or as otherwise directed. Excess aggregate shall be disposed of by brooming or other approved means.

n. Special Protection Under Traffic. No traffic or equipment shall come in contact with the compacted mixture until it has set sufficiently to prevent marking; edges shall be protected from being broken down; edge drop-offs one or more inches in height shall be marked with warning devices visible by day and night to traveling public at spacing sufficiently close to indicate the alignment and location of the hazard if the road is under traffic.

TECHNICAL SPECIFICATIONS

SECTION II

ROAD WORK

I. EMULSIFIED ASPHALT CHIP SEALS (Bid Alternative - B)

1. Scope. This work shall consist of an application or applications of emulsified asphalt and graded aggregates on properly prepared surfaces. The type of chip seal (1/4"-No.10, 3/8"-No.10, or 5/8"-1/4") to be applied will be as designated on the Drawings or specified herein.

The emulsified asphalt chip seal shall be constructed in accordance with these specifications and in reasonably close conformity to the lines, grades, thicknesses and cross sections shown on the Drawings or established by the Engineer.

The rates of spreads and quantities of materials are subject to variation as directed by the Engineer to adjust for variable conditions encountered or experienced during the construction. Also, the Contractor shall recognize that the nature of the work calls for equipment in varying number and versatility and modification of procedures to some extent. Generally, the ratio of asphalt to aggregate shall be held closely constant to that specified.

2. Materials.

a. Bituminous Materials. The bituminous materials to be used in the emulsified asphalt chip seal shall be CRS-2 or CRS-1 emulsified asphalt. The emulsified asphalt shall conform to the requirements of Section 702 of the Oregon State Highway Division "Standard Specifications for Highway Construction - 1984".

The materials may be conditionally accepted based on certification at the source or point of loading for transport to the project. Excessive delay in the use of the emulsified asphalt or excessive pumping of the emulsified asphalt may significantly reduce the viscosity and may make the material unsuitable for chip seal use. For this reason pumping which occurs between the bulk storage tank, hauling transportation, field storage tanks, and distributor shall be kept to an absolute minimum. Final acceptance of emulsified asphalt will be at the point of application.

b. Aggregates. The size of aggregates for the various types of chip seals shall conform to the following:

Chip Seal Types	Size of Screenings
Fine	1/4" - No. 10
Medium	3/8" - No. 10
Coarse	5/8" - 1/4"

Aggregates shall consist of crushed rock, crushed gravel, or a combination of both. Aggregates shall have at least one mechanically fractured face on a minimum 90 percent of the material retained on the No. 10 and larger sieve sizes. Aggregates shall conform to the quality requirements of subsection 703.08(a-3), (a-4), and (a-5) of OSHD "Standard Specifications for Highway Construction - 1984". In addition, the aggregates shall be clean. Unless all dirt, dust, clay and other objectionable matter is removed by dry screening, the aggregates shall be made clean by washing and/or by eliminating from the quarry rock or pit-run product, or from the product of the breaker crusher, the smaller sized rock or gravel with which the dirt, clay and other objectionable matter is combined. The cleanness value as determined by OSHD TM 227 shall be a minimum value of 75. The percentage composition by weight of aggregates shall conform to one of the following gradations:

Sieve Size	Percentage Passing		
	Coarse 5/8" - 1/4"	Medium 3/8" - No. 10	Fine 1/4" - No. 10
5/8"	100	-	-
1/2"	95-100	100	100
3/8"	40-60	-	-
1/4"	0-15	5-30	80-100
No. 10	0-5	0-10	0-10
No. 40	0-2	0-5	0-2

3. Construction.

a. Weather Limitations. Emulsified asphalt chip seals shall be placed on properly prepared surfaces and shall not be placed on any wet surfaces. The air temperature and the surface temperature in the shade shall not be less than 65°F. Chip seals damaged by rain shall be removed by the Contractor by milling or other acceptable methods and replaced at the Contractor's expense. Should the Contractor proceed with his operation knowing that adverse weather is predicted, he will be proceeding at his own risk and shall assume all losses that may be due to the onset of inclement weather. The Contractor shall not place asphalt chip seals before July 1 or after September 15 unless approved otherwise by the Engineer.

b. Equipment. The equipment to be used shall include self-propelled chip spreader equipped with a mechanical device which will spread the screenings at a uniform rate across the full width of the chip spreader, pressure distributor equipped with emulsion nozzles, power brooms with positive means to control vertical pressure, haul vehicles, and such other necessary equipment to insure efficient operation and construction to meet specified results. Equipment shall be provided in such number and capacities as will provide coordinated and uniform progress.

1) Asphalt Distributor. The asphalt distributor shall be so designed, equipped, maintained and operated that emulsified asphalt material at even heat may be applied uniformly on variable widths of surface up to 15 feet at readily determinable and controlled rates from 0.05 to 2.0 gallons per square yard, with uniform pressure, and with an allowable variation from any specified rate not to exceed 0.02 gallon per square yard. Distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperature of tank contents. Distributors shall have a power unit for the pump and full circulation spray bars adjustable laterally and vertically.

The distributor operator shall provide manufacturer's specifications showing proper nozzle size for desired travel and rate of emulsified asphalt application. Pump pressure shall be in the middle or lower end of the acceptable range. Nozzle angle shall be set accurately to the angle stated in the manufacturer's

specifications. Bar height shall be set for single or double lap coverage.

2) Compactors. Rollers shall be self-propelled pneumatic-tired, self-propelled steel wheel or a combination of both. Steel wheel rollers shall be capable of providing a weight of not less than 200 pounds per inch width of the compression roll or rolls. Pneumatic tire rollers shall be capable of exerting a ground pressure of not less than 80 pounds per square inch of tire contact area with tires inflated to equal pressures within a tolerance of 2-1/2 pounds per square inch. Compactors shall be capable of operating speeds compatible with the chip seal operation.

c. Surface Preparation. Immediately before applying the emulsified asphalt, the surface to be sealed shall be clean and dry. Cleaning shall be performed by sweeping, flushing or other means necessary to remove all loose particles of paving, all dirt and all other extraneous material.

d. Applying Emulsified Asphalt. The application rate of emulsified asphalt for the three types of chip seals shall be within the following ranges. The exact rate of application will be determined by the Contractor in consultation with the Engineer.

Chip Seal Types	Ranges Gallons/Sq. Yd.
Fine	0.25 to 0.35
Medium	0.30 to 0.40
Coarse	0.35 to 0.45

Application of emulsified asphalt shall be discontinued sufficiently early in the day to permit the termination of rolling prior to darkness. The emulsified asphalt shall not be applied to more than on-half width of the travel way at one time and the remaining width shall remain open to traffic. The open lane shall not be closed until traffic controlled by pilot car is operating on the new chip seal. At the end of each day the chip seal shall be applied to both sides of the travel way so that the end of the work is squared up.

Emulsified asphalt shall not be applied a greater distance than can be immediately covered by aggregates before the emulsion breaks.

Building paper shall be placed over the treated surface at the beginning of the spread to insure that the nozzles are operating properly before the uncovered surface is reached. On subsequent joints when the distributor is turned off and on, the use of paper normally will not be required unless directed by the Engineer. Building paper shall be removed and disposed of in a manner satisfactory to the Engineer.

The distribution of the emulsified asphalt shall not vary between the individual nozzles by more than 15 percent transversely from the average as determined by tests and no more than 10 percent longitudinally from the specified rate of application.

The application temperature of the emulsified asphalt shall be between 140°F and 165°F.

e. Hauling and Spreading Aggregates. Hauling and spreading equipment shall not be operated on uncovered emulsified asphalt. Hauling equipment shall be operated in a practical manner and at moderate speeds such as will not damage the new oil mat or create a hazard to the traveling public.

Prior to spreading any emulsified asphalt or aggregates, the chip spreader shall be accurately calibrated for the various sizes of aggregates to be used in regard to gate opening, gear selection and engine RPM. Following calibration the rate of application shall be verified by truck measure and area covered.

Immediately following the application of the emulsified asphalt and before setting or "breaking" of the emulsified asphalt, the surface shall be covered with aggregate. The rate of spread of this aggregate shall be maintained within 10 percent of specified rate. Hauling and spreading equipment shall not be operated on uncovered emulsified asphalt. The spread rates of aggregates for the three types of seals normally will be within the following ranges of pounds per square yard. The exact rate will be determined by the Contractor in consultation with the Engineer.

Chip Seal Types	Ranges Cu.Yd./Sq.Yd.
Fine	0.005 to 0.008
Medium	0.009 to 0.012
Coarse	0.010 to 0.013

The chip spreader shall not be operated at speeds which cause the chips to roll over after striking the emulsion covered surface. The transverse cut off of aggregates shall be neat and any excess aggregates shall be removed from the surface prior to resuming operations. Aggregates shall be surface damp at the time of application, but the aggregate shall not have excess free water (water not adhering to the aggregate surface).

f. Shaping. After the aggregates have been spread upon the emulsified asphalt, any piles, ridges, or uneven distribution shall be carefully removed by hand tools to insure against rough spots in the final surface. In the event aggregates begin to pick under traffic or from the rolling operation, that area shall be immediately covered with additional quantities of fine aggregate and rolled.

g. Compacting. Roller speed shall not exceed 8 MPH on the first pass and 12 MPH on the second pass. Rolling shall consist of two complete coverages and at least one roller shall remain immediately behind the spreader.

h. Brooming. The day following the application of the chip seal, the entire surface shall be carefully broomed to remove loose aggregate that could damage vehicles. Subsequent brooming the following two days shall be performed by the Contractor as required to insure that the surface is free of loose aggregate that could cause vehicle damage. The amount of chip seal applied in any one day shall not exceed the amount that can be broomed the following day as specified above, unless approved by the Engineer.

i. Special Protection Under Traffic. In addition to other required traffic provisions, at locations where public traffic is being routed over the new chip seal, the traffic shall be controlled by appropriate construction warning

signs, flaggers, and/or pilot cars as may be required until the surface has been satisfactorily broomed to remove loose aggregate.

J. EMULSIFIED ASPHALT OIL MAT (Bid Alternative - C)

1. Scope. This work shall consist of applications of emulsified asphalt and graded aggregates applied in successive spreads to form a firm finished surface.

The emulsified asphalt oil mat shall be constructed in accordance with these specifications and in reasonably close conformity to the lines, grades, thicknesses and cross sections shown on the Drawings or established by the Engineer.

The rates of spreads and quantities of materials are subject to variation to adjust for variable conditions encountered or experienced during the construction. Also, the Contractor shall recognize that the nature of the work calls for equipment in varying number and versatility and modification of procedures to some extent. Generally, the ratio of asphalt to aggregate shall be held closely constant to that specified.

2. Materials.

a. Bituminous Materials. The bituminous materials to be used in the emulsified asphalt oil mats shall be CRS-2 emulsified asphalt. The emulsified asphalt shall conform to the requirements of Section 702 of the Oregon State Highway Division "Standard Specifications for Highway Construction - 1984".

The materials may be conditionally accepted based on certification at the source or point of loading for transport to the project. Excessive delay in the use of the emulsified asphalt or excessive pumping of the emulsified asphalt may significantly reduce the viscosity and may make the material unsuitable for oil mat use. For this reason pumping which occurs between the bulk storage tank, hauling transportation, field storage tanks, and distributor shall be kept to an absolute minimum. Final acceptance of emulsified asphalt will be at the point of application.

b. Aggregates. Aggregates shall consist of crushed rock, crushed gravel, or a combination of both. At least 90 percent by weight of the total aggregate retained on the No. 10 and larger sieves shall be mechanically

fractured on at least one face.

Elongated pieces in the coarse aggregate (aggregate larger than 1/4 inch) shall be determined as described in OSHD Test Method 229N with the proportional caliper device set at a ration of 5:1 and shall not exceed 20 percent by weight of the material retained on the 1/4-inch sieve.

Aggregates shall conform to the quality requirements of Sections 703.08(a-3), (a-4), and (a-5) of the Oregon State Highway Division "Standard Specifications for Highway Construction - 1984". In addition, the aggregate shall be clean. Unless all dirt, dust, clay and other objectionable matter is completely removed by dry screening, the aggregates shall be made clean by washing and/or by eliminating from the quarry rock or pit-run material, or from the product of the breaker crusher, the smaller sized rock or gravel with which the clay, dirt, and other objectionable matter is combined. The cleanness value as determined by OSHD TM 227 shall be a minimum value of 75. The percentage composition by weight of aggregates shall conform to one of the following gradations:

	Separate Sizes		
	3/4"-1/2"	5/8"-1/4"	1/4"-No. 10
Sieve Size	Percent Passing (by Weight)		
1"	100	-	-
3/4"	90-100	-	-
5/8"	-	100	-
1/2"	0-10	95-100	100
3/8"	-	40-60	-
1/4"	0-2	0-15	80-100
No. 10	-	0-5	0-10
No. 40	-	0-2	0-2

3. Construction.

a. Weather Limitations. Emulsified asphalt oil mats shall be constructed on properly prepared surfaces and shall not be placed on any wet surfaces. Oil mats shall not be placed when the air temperature and the surface temperature in the shade is below 70°F nor if the humidity is higher than 75 percent. The application of the emulsified asphalt and the aggregate chips

shall be completed two hours before sunset. Oil mats damaged by rain during the first 24 hours after application shall be removed by milling, or other approved methods, and replaced at the Contractor's expense. Should the Contractor proceed with his operation knowing the that adverse weather is predicted, the Contractor will be proceeding at his own risk and shall assume all losses associated that may be due to the onset of inclement weather. The Contractor shall not construct oil mats before July 1 or after September 15.

b. Equipment. The equipment to be used shall include pressure distributor, hauling vehicles, chip spreader, compactors, power brooms and such other necessary equipment to insure efficient operation and construction to meet specified results. Equipment shall be provided in such numbers and capacities as will provide coordinated and uniform progress of the work.

The Contractor shall provide two-way radio communication between the asphalt distributor and chip spreader.

1) Asphalt Distributor. The asphalt distributor shall be so designed, equipped, maintained and operated that emulsified asphalt material at even heat may be applied uniformly on variable widths of surface up to 15 feet at readily determinable and controlled rates from 0.05 to 2.0 gallons per square yard, with uniform pressure, and with an allowable variation from any specified rate not to exceed 0.02 gallon per square yard. Distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperature of tank contents. Distributors shall have a power unit for the pump and full circulation spray bars adjustable laterally and vertically.

The Contractor shall provide manufacturer's specifications showing proper nozzle size for desired viscosity, rate of travel, and rate of emulsified asphalt application. Pump pressure shall be in the middle or lower end of the acceptable range. Nozzle angle shall be set accurately to the angle stated in the manufacturer's specifications. Bar height shall be set for triple lap coverage.

2) Chip Spreader. The chip spreader shall be self-propelled and shall be equipped with a mechanical device that will spread the aggregate at a uniform rate across the full width of the chip spreader. A chip spreader capable of providing a width of at least 14 feet in a single coverage shall be required.

3) Compactors. Rollers shall be self-propelled pneumatic-tired or three-wheel steel with a minimum of one pneumatic-tired roller and one three-wheel steel roller required. They shall be in good condition and capable of operating at speeds compatible with the chip seal operation.

a) Pneumatic Rollers. The pneumatic-tired rollers shall be self-propelled, tandem or multiple axle, multiple wheel type with smooth-tread pneumatic tires of equal size staggered on the axles at such spacings and overlaps as will provide uniform compacting pressure for the full compacting width of the roller and shall be capable of exerting ground pressures of 80 pounds per square inch of tire contact area.

b) Steel Wheel Rollers. The three-wheel steel roller shall provide a weight of not less than 200 pounds per inch of width of the compression roll or rolls.

4) Brooms. Brooms shall be pickup and/or nonpickup type and shall have a positive means to control vertical pressure.

c. Preparation of Foundation. Aggregate bases and other bases or foundations, when constructed under the contract shall be brought to the completed and finished condition prescribed therefore under the applicable specifications.

d. Sequence of Operations and Application Rates. The number of spreads, the size of aggregates, and the application rates for both emulsified asphalt and aggregates for the type of emulsified asphalt oil mat to be used shall be as shown in the following Table of Details. The rates of spread shall be subject to variation by the Contractor in consultation with the Engineer, during the progress of the work, as required to produce the best results.

TABLE OF DETAILS
EMULSIFIED ASPHALT OIL MATS

Spreading Order and *Rates of Spread	Type E-9
First Course	
Emulsified Asphalt	0.30
3/4"-1/2" Aggregate	0.014
Second Course	
Emulsified Asphalt	0.35
5/8"-1/4" Aggregate	0.010
1/4"-No. 10 Aggregate	0.003
Third Course	
Emulsified Asphalt	0.30
1/4"-No. 10 Aggregate	0.007
Total Quantities	
Emulsified Asphalt	0.95
Aggregates	0.034

* The rates of spread are in the following units:

Emulsified Asphalt - Gallons per Square Yard
Aggregates - Cubic Yards per Square Yard

Preceding spreads of designated size aggregate shall be shaped and compacted and shall be at established line and grade just prior to the succeeding spread. The Contractor shall complete all spreads of material including the seal coat during the same day the first spread is started.

e. Applying Emulsified Asphalt. The Contractor shall apply the emulsified asphalt working toward the aggregate stockpile at all times.

A minimum of 200 gallons of emulsified asphalt shall remain in the distributor tank at all times except for the last shot on the project.

Emulsified asphalt shall not be applied a greater distance than can be immediately covered by aggregates before the emulsion breaks.

Building paper shall be placed over the treated surface at the beginning of each spread to insure that the nozzles are operating properly before the uncovered surface is reached. Building paper shall be removed and disposed of in a satisfactory manner.

If required by the Engineer, the Contractor shall demonstrate the distribution of the emulsified asphalt shall not vary between the individual nozzles by more than 15 percent transversely from the average and no more than 10 percent longitudinally from the specified rate of application.

The application temperature of the emulsified asphalt shall be between 140°F and 165°F.

f. Hauling and Spreading Aggregates. Hauling and spreading equipment shall not be operated on uncovered emulsified asphalt. During the first one hour after application of the emulsified asphalt and aggregate, speeds shall be no more than 10 MPH and after the first hour, speeds shall not be in excess of 15 MPH. At all times, hauling equipment shall be operated in a prudent manner and at moderate speeds that will not damage the new chip seal or create a hazard to the traveling public.

The chip spreader shall be accurately calibrated for the various sizes of aggregates to be used in regard to gate opening, gear selection, and engine RPM. Following calibration the rate of application shall be verified by truck measure and area covered.

Immediately following the application of the emulsified asphalt, the surface shall be covered with aggregate. The rate of spread of this aggregate shall be maintained within 10 percent of specified rate. Emulsified asphalt that has set or "broke" before being covered with aggregate shall be removed or repaired by methods approved by the Engineer and shall be at the Contractor's expense.

Operating the chip spreader at speeds which cause the chips to roll over after striking the emulsified asphalt will not be permitted.

The transverse cut off of aggregates shall be neat and any excess aggregates shall be removed from the surface prior to resuming operations.

Aggregates shall be surface damp at the time of application, but shall not have excess free water (water not adhering to the aggregate surface).

g. Shaping. After the aggregates have been spread upon the emulsified asphalt, any piles, ridges, or uneven distribution shall be spread and/or removed by hand tools or mechanical means as the Contractor elects to ensure against rough spots in the final surface.

In the event aggregates begin to pick under traffic or from the rolling operation, that area shall be immediately covered with additional quantities of fine aggregate and rolled.

h. Compaction. Initial rolling shall consist of one complete coverage with one roller remaining immediately behind the chip spreader. Secondary rolling shall begin immediately after completion of the initial rolling and continue until the surface has had three additional complete coverages (four coverages total). Roller speed shall not exceed 8 MPH.

Rolling shall normally commence at the low side of the cross section and progress with passes parallel to the roadway centerline. Each lap shall overlap the preceding pass by at least one half the width of the roller.

Along curbs, walls, and at all other places not accessible to specified rollers, the aggregate shall be thoroughly compacted with mechanical tampers or with hand tampers. Each hand tamper shall weigh not less than 50 pounds and have a tamping face of not more than 100 square inches.

Irregularities in surface smoothness, nonuniformity of texture, segregation of materials, dirt pockets, spots of excess asphalt and other deficiencies and defects shall be corrected by removal, replacement, addition of material, repetition of construction operations or other suitable means.

i. Remove Excess Aggregate. The day following the application of the final course, the entire surface shall be carefully bladed or power broomed to remove loose aggregate that could damage vehicles. Equipment shall

be provided in such numbers and sizes to complete this operation within the prescribed time.

Motor graders shall be in good condition with sharp, straight cutting edges on the blade.

j. Establishment. After placement of the final course, during periods when partial construction is open to traffic and for one calendar week following original completion of the final course throughout the entire length of the project, the Contractor shall perform the following operations:

1) The surface shall be bladed or broomed to correct bleeding of asphalt, to provide coverage with aggregates, to keep the surface free of ravel, traffic grooves, holes, and other deformations, and to eliminate other defects that may appear.

2) Rolling and compacting of materials shall be performed to maintain or restore firmness and stability to the materials.

3) Abutting shoulders shall be trimmed and materials which come into side ditches shall be removed and wasted in a manner satisfactory to the Engineer.

4) In curbed areas, the Contractor shall use a pick up type broom. On bridges, sidewalks, and other areas off the roadway, all extraneous aggregates shall be removed by the Contractor to the satisfaction of the Engineer.

The above operations shall be performed under traffic and at frequencies which the Engineer determines as being necessary to develop and establish the course to uniform firmness and stability throughout.

K. CONSTRUCTION STAKING

For the earthwork and aggregate base rock the Engineer will provide stakes at 50-foot stations and at all other grade changes. The Contractor shall provide his own grade checking of the aggregate base. Upon completion of the aggregate base to within 0.1 foot plus or minus of design grade, the Engineer shall provide hubs at 50 foot stations and at all other grade changes for use by the

Contractor in fine grading the base rock. Any additional staking requested by the Contractor, replacement of stakes or hubs lost or disturbed by the Contractor, or restaking required because of improper grade construction will be done by the Engineer at the Contractor's expense, or by qualified personnel hired by the Contractor.

L. ADJUSTMENT OF UTILITY COVERS TO GRADE

The Contractor shall adjust the tops of all existing manholes, valve boxes and other utility covers as required to bring the covers or gratings of the structures to the grade required by the improvement involved. The method of adjustment shall be shown on the Drawings or as approved by the Engineer. The Contractor shall repair any of these structures which are damaged during performance of the work at no cost to the Owner.

M. DRAINAGE TRENCHES

Drainage trenches shall be constructed in the locations and in accordance with the details shown on the Drawings.

N. TESTING

1. General. All testing shall be performed as per the requirements of the Drawings and Technical Specifications. Materials and work which fail to meet contract requirements shall not be incorporated in the work.

2. Owner's Responsibilities. The Owner will provide routine testing services on materials and work incorporated on the project. These tests may include, but are not limited to, spot gradation checks, in-place densities, extraction/gradations, etc. All routine testing services performed by the Engineer or Owner are provided for the Owner's information and in no way relieves the Contractor's responsibility to comply fully with the contract requirements.

3. Contractor's Responsibilities. The Contractor shall provide, at his expense, all preliminary testing needed to determine if materials and equipment are suitable for the project. If aggregates are crushed for use on this project, the Contractor shall be responsible for providing adequate quality control tests to document that the materials conform to these specifications. Once this is done, all routine testing will be as outlined in paragraph (2.) above. In addition to the above tests, all other

tests required by laws, ordinances, regulations, and orders of public authorities shall also be the responsibility of the Contractor. The results of all tests performed on materials to be used on the project by the Contractor shall be submitted to the Engineer, prior to the use of any of these materials.

The Contractor shall cooperate with testing personnel and shall provide access to the work area and to manufacturer's operations. The Contractor shall notify testing and inspection personnel at least 24 hours in advance of operations to allow for personnel assignments and test scheduling. All materials to be tested shall be provided by the Contractor at his expense. After tests are completed, the Contractor shall be responsible for repairing test areas to match original conditions. The Contractor shall remove all defective material from the site at his expense. The Contractor shall pay for reinspection and retesting required because of defective work or ill-timed notices. Routine testing services are provided for Owner's information and in no way relieve the Contractor of his responsibility to comply with the Contract Documents.

O. BASIS OF MEASUREMENT AND PAYMENT

See Technical Specifications - "Measurement and Payment" for a description of the basis of measurement and payment for work performed under this contract.

TECHNICAL SPECIFICATIONS

SECTION III

TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC

A. GENERAL

Items specified in this Technical Specification are intended to be broad in scope and may not always apply to all items of work to be constructed. All applicable sections, as determined by the Engineer, shall control the work outlined in the Contract Documents.

All signs, barricades, barriers, lights, cones, and other such "devices" required to warn, protect or direct the public and workmen during the life of the Contract shall be furnished, installed, moved, and removed by the Contractor. When conditions warrant their use, flagmen shall also be provided by the Contractor. The determination of what measures are required, in addition to those specifically called for by the Drawings and Specifications, shall be solely the responsibility of the Contractor. The Engineer and Owner are not responsible for determining whether proper safety precautions, etc., are being utilized. Should the Contractor fail to furnish the necessary protective measures, the Engineer may, but shall not be required to, bring to the Contractor's attention by written notice to such failure and the Contractor shall undertake such corrective measures as is proper.

B. MATERIALS AND CONSTRUCTION

The materials used for and the installation of all devices shall conform to the applicable provisions of Standard Specifications for Highway Construction - current edition, Oregon State Highway Division, Section 111 and Manual of Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, Federal Highway Administration, latest edition.

C. BASIS OF MEASUREMENT AND PAYMENT

No direct payment will be made for "Temporary Protection and Direction of Traffic", including any flagmen, etc., required by State Highway Crossing Permits, Railroad Permits, etc. Payment for all labor, equipment, materials, and incidentals required to perform the work specified herein shall be included in other appropriate bid items. See Technical Specifications - "Measurement and Payment" for a description of the basis of measurement and payment for work performed under this contract.

TECHNICAL SPECIFICATIONS
SECTION IV
MEASUREMENT AND PAYMENT

A. GENERAL

The basis for measurement and payment for all work performed under this contract shall be as listed in the "Bid Schedule". Unless the work to be performed is specifically called out to be measured and paid for in the Bid Schedule, payment for such work shall be included in other applicable items of the Bid Schedule. There shall be no separate measurement and payment for any such work not specifically listed in the Bid Schedule.

Items listed in the Bid Schedule as lump sum shall be on a lump sum all required basis. No direct measurement will be made for lump sum bid items. Bid items calling for unit prices show estimated quantities of work to be performed. These quantities, although shown with as much accuracy as possible, are approximate only and are for bidding purposes only. Payment to the Contractor shall be made on the quantity of work actually performed by the Contractor. The Owner reserves the right to increase or decrease these quantities as may be deemed necessary and by so doing will not invalidate the unit prices as listed in the Bid. Some Bid Schedule items may be deleted. Unit prices shown in the Bid Schedule will be the basis of payment for all work performed. No additional compensation including, but not limited to shipping or restocking costs and/or adjustments in unit prices will be made if the amount of work is increased or decreased from that estimated in the Bid Schedule.

The summation of all bid items under the Bid Schedule shall equal all work required by the Drawings and Specifications regardless of whether individual items of work are described under bid item descriptions or not. Payment shall be made at the contract unit bid or lump sum prices listed in the Bid. The prices listed therein shall be payment in full for all labor, tools, equipment, materials, etc., which are required to construct respective bid items according to the Contract Documents including all work and materials incidental thereto.

Payment for unit bid items and lump sum bid items only partially completed at the end of monthly pay periods shall be based on a percentage of work completed as determined by the Engineer.

B. BID ITEMS

1. Mobilization. This is a lump sum all required bid item. There shall be no measurement of the work for payment purposes. Payment for the performance of the mobilization work as specified will be made at the contract lump sum price

stated in the Bid for the bid item "Mobilization". The amount of the bid for "Mobilization" shall not exceed 5 percent of the total bid price. Payment for 100 percent of the "Mobilization" bid price shall be made on the first payment request.

2. Aggregate Base Rock. Measurement for payment for aggregate base shall be made on a per ton basis for the amount of aggregate base required, if any, to supplement the aggregate base furnished and placed by the Owner. The Contractor shall furnish trip tickets listing the actual weight of material delivered on each truck to the jobsite and incorporated into the work. These tickets are to be delivered to the project site with each truck. Verification of the accuracy of the truck scales shall be supplied by the Contractor prior to delivery of any material. Payment shall made at the unit price stated in the Bid Schedule for the bid item "Aggregate Base Rock".

3. Finish Grading of Aggregate Base Rock. This is a lump sum all required bid item. There shall be no measurement of the work for payment purposes. The work shall consist of fine grading of the aggregate base rock after the Owner completes the furnishing, placement, **rough** grading, and compaction of the aggregate base material. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Finish Grading of Aggregate Base Rock".

4. Base Rock and Surface Rock. Measurement for payment for base rock and surface rock shall be calculated on a neat line in-place cubic yard basis by field measuring the actual centerline lengths of the areas covered times the required neat line widths and thickness shown on the Drawings. Double payment for overlap areas will not be made. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Base Rock" and "Surface Rock". The work under the bid item "Surface Rock" shall include all preparatory grading, trimming, and excavation of the subgrade along the shoulders required prior to placement of the surface rock.

5. Soil Sterilant on Shoulders. This is a lump sum all required bid item. There shall be no measurement of the work for payment purposes. Payment shall be made at the lump sum bid price as stated in the Bid Schedule for "Soil Sterilant on Shoulders".

6. Hot Mix Asphalt Concrete and Emulsified Asphalt Concrete Pavements. Asphalt concrete pavement shall be made on a square yard basis by measuring the actual lengths and widths of the areas paved for each type of asphalt concrete pavement. The work shall include all liquid asphalt, aggregates, equipment, plant,

hauling, spreading, compaction, etc. For emulsified asphalt pavement the work shall also include the choke seal; Payment for the chip seal shall be included under the separate bid item "Emulsified Asphalt Chip Seal". The Contractor shall additionally supply the Engineer with copies of all trip tickets listing the actual weight of material delivered on each truck to the project. These tickets are to be delivered to the project site with each truck. Verification of the accuracy of the truck scales which will be used shall be supplied by the Contractor prior to delivery of any mix. Weight tickets will be used to check minimum pavement thickness called for on the Drawings. Payment shall be made at the unit price stated in the Bid Schedule for the bid items ___-inch Hot-Mix Asphalt Concrete Pavement", or "___-inch Emulsified Asphalt Concrete Pavement".

7. Emulsified Asphalt Oil Mat. Measurement for payment for emulsified asphalt oil mat shall be made on a square yard basis of the actual area covered. The work shall include all emulsified asphalt, aggregates, equipment, compaction, surface preparation, hauling, spreading, shaping, removal of excess aggregate, etc. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Emulsified Asphalt Oil Mat". The Contractor shall furnish the Engineer with copies of all trip tickets listing the actual weight of aggregates delivered on each truck to the project. Weight tickets shall be delivered with each truck. In addition, the Contractor shall furnish weight tickets for all emulsified asphalt applied for each layer of the oil mat. The weight tickets will be used to check the application rate of aggregates and emulsified asphalt.

8. Emulsified Asphalt Chip Seal. Measurement for payment for emulsified asphalt chip seal shall be made on a square yard basis of the actual area covered. The work shall include all emulsified asphalt and aggregate, equipment, compaction, surface preparation, spreading, brooming, etc. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "___ Emulsified Asphalt Chip Seal (1/4"-No.10, 3/8"-No.10, or 5/8"-1/4"). The Contractor shall furnish the Engineer with copies of all trip tickets listing the actual weight of aggregates delivered on each truck to the project. In addition, the Contractor shall furnish weight tickets for all emulsified asphalt applied in the chip sealing operation. The weight tickets will be used to check the application rate of aggregates and emulsified asphalt.

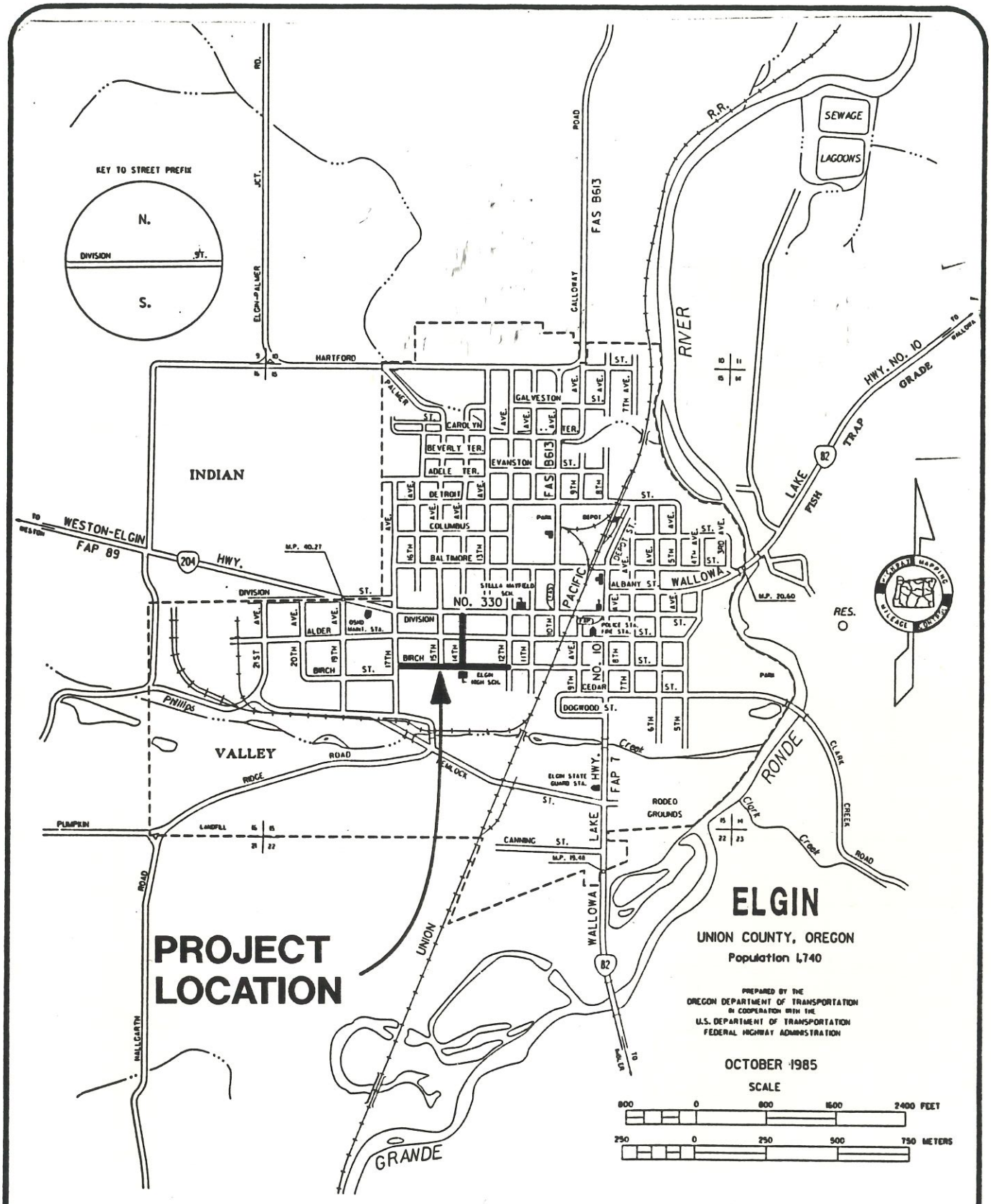
9. Asphalt Seal Coat. The asphalt seal coat shall be measured on a per ton basis for the actual quantity of diluted material applied in the field. The actual method of measuring the weight of material shall be jointly agreed upon by the Engineer and the Contractor prior to placement of any material. The work shall

include all surface cleaning, asphalt and application, sand, sweeping, and cleanup of excess sand, etc. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Asphalt Seal Coat".

10. Adjustment of Utility Covers to Grade. Manholes, catch basins, monument boxes, cleanouts, and valve boxes adjusted to match existing grade will be measured on the basis of each structure adjusted and shall include all necessary equipment, materials, and labor. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Adjustment of Utility Covers".

11. Drainage Trench. Measurement for payment for drainage trenches shall be made on a lineal foot basis. The work includes all excavation, 1 1/2"-3/4" concrete aggregate, etc. Payment shall be made at the unit price stated in the Bid Schedule for the bid item "Drainage Trench".

DRAWINGS

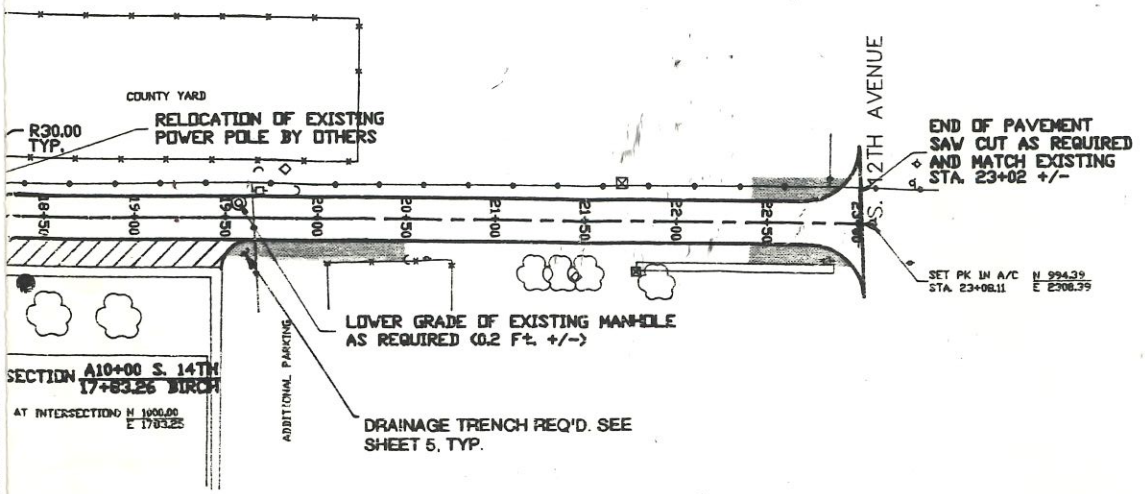


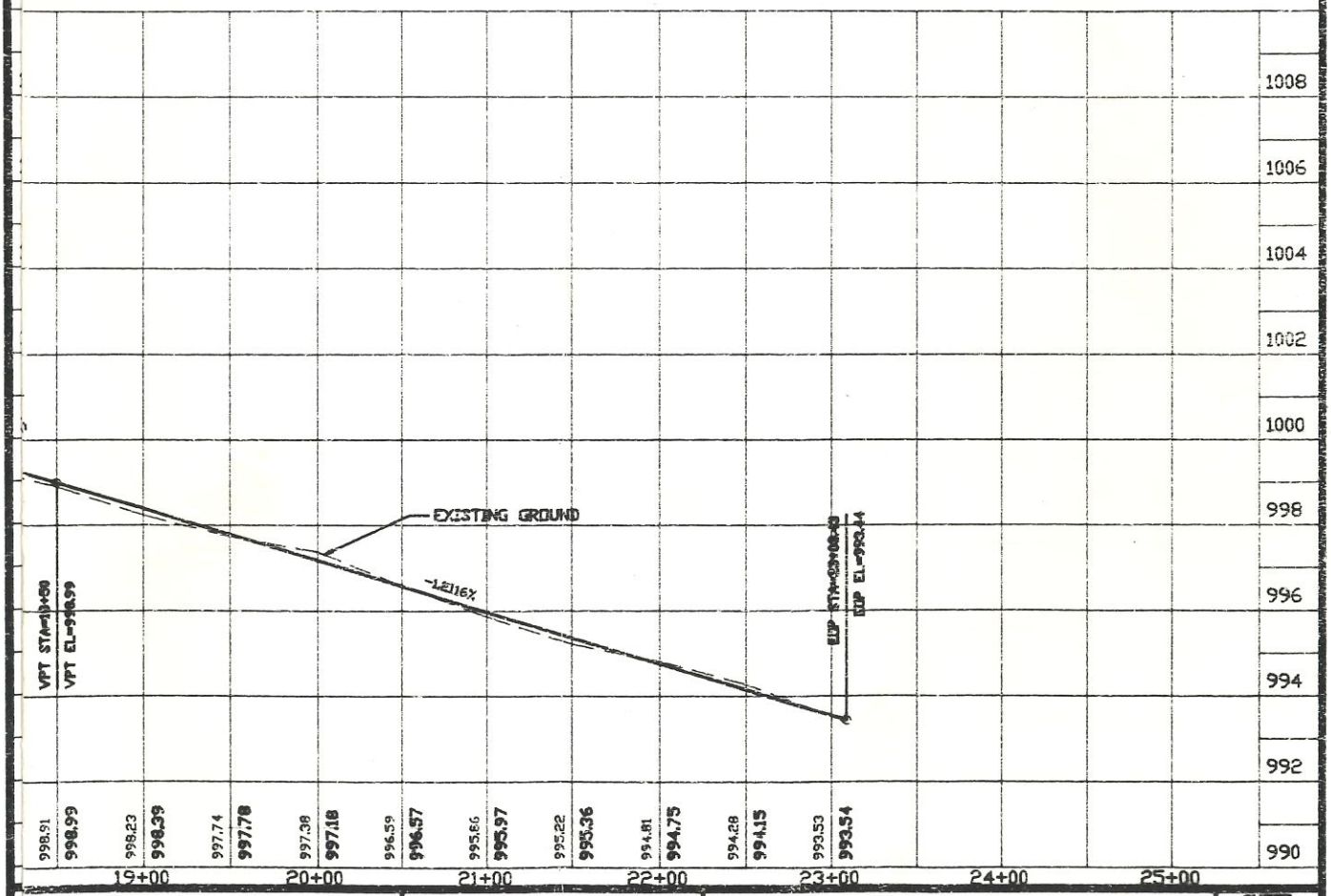
CITY OF
ELGIN, OREGON
BIRCH STREET & S. 14TH AVENUE IMPROVEMENTS

PROJECT LOCATION MAP

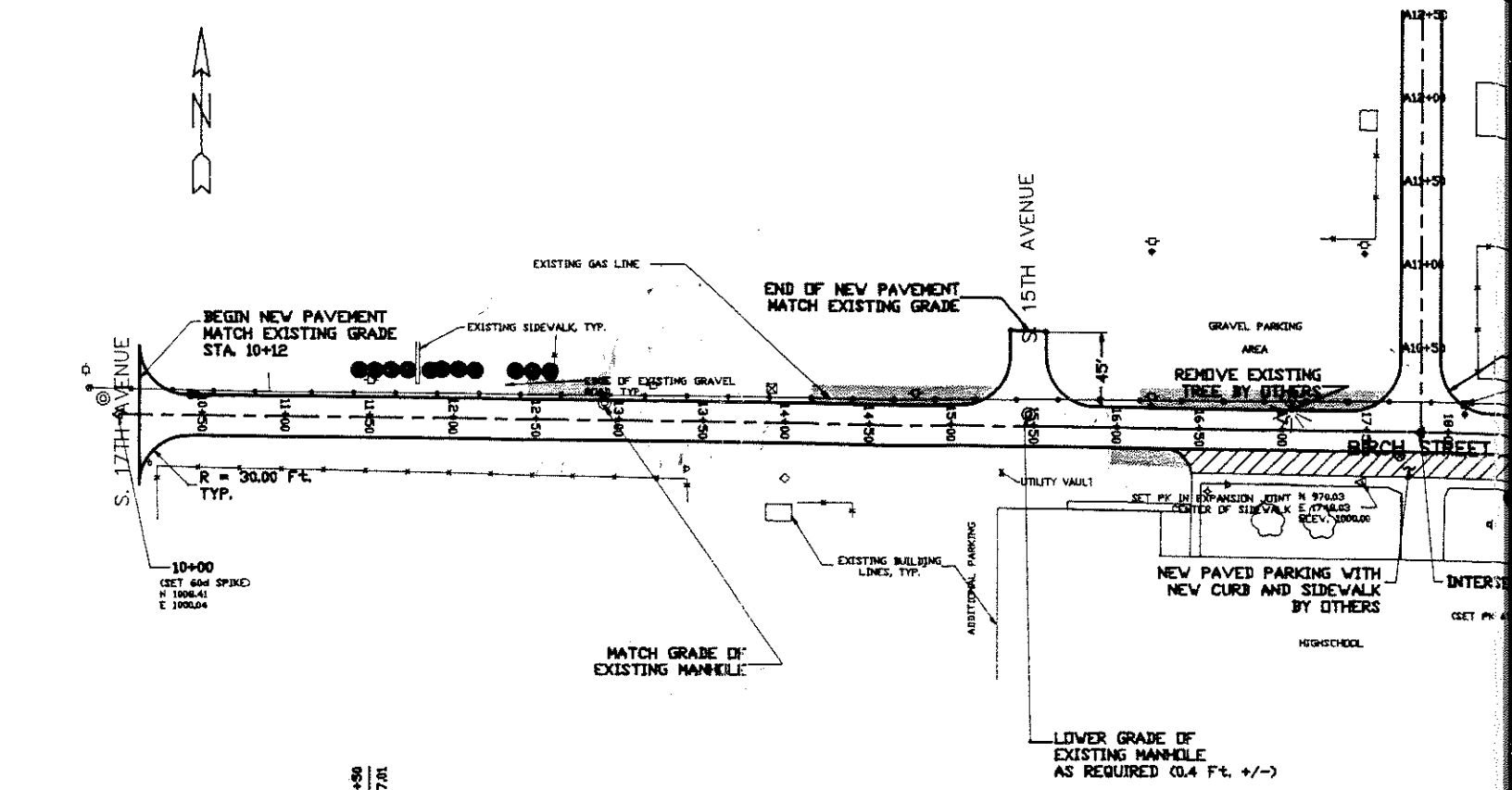
anderson perry & associates, inc.

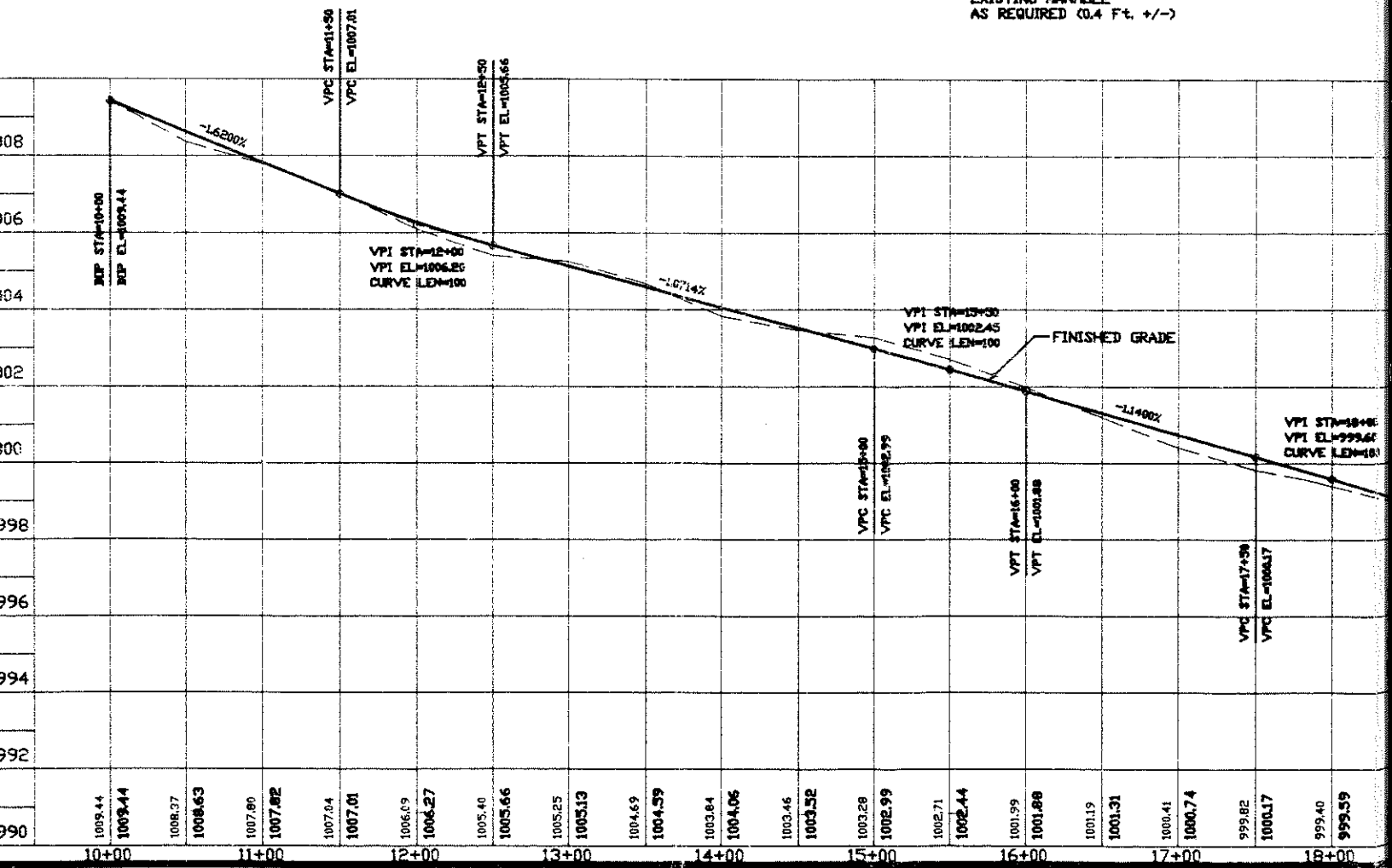
SHEET
1





		CITY OF ELGIN **BIRCH STREET AND S. 14th AVENUE IMPROVEMENTS** **PLAN \ PROFILE STA. 10+00 to 23+60 BIRCH STREET**	SHEET **2**


N
S. 17TH AVENUE
BEGIN NEW PAVEMENT MATCH EXISTING GRADE STA. 10+12
EXISTING SIDEWALK, TYP.
EXISTING GAS LINE
EDGE OF EXISTING GRAVEL ROAD TYP.
END OF NEW PAVEMENT MATCH EXISTING GRADE
S. 15TH AVENUE
GRAVEL PARKING AREA
REMOVE EXISTING TREE BY OTHERS
BIRCH STREET
R = 30.00 Ft. TYP.
10+00
(SET 60d SPIKE)
N 1006.41
E 1000.04
UTILITY VAULT
SET PK IN EXPANSION JOINT N 970.03
CENTER OF SIDEWALK E 1748.03
ELEV. 1000.00
EXISTING BUILDING LINES, TYP.
ADDITIONAL PARKING
NEW PAVED PARKING WITH NEW CURB AND SIDEWALK BY OTHERS
HIGHSCHOOL
MATCH GRADE OF EXISTING MANHOLE
LOWER GRADE OF EXISTING MANHOLE AS REQUIRED (0.4 Ft. +/-)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VPI STA=12+00
VPI EL=1006.26
CURVE LEN=100
-1.6200%
-1.0714%
-1.1400%
VPI STA=15+30
VPI EL=1002.45
CURVE LEN=100
FINISHED GRADE
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VPC EL=1002.99
VPT STA=16+00
VPT EL=1001.88
VPC STA=17+90
VPC EL=1000.17
VPI STA=18+05
VPI EL=999.66
CURVE LEN=10
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1006.09
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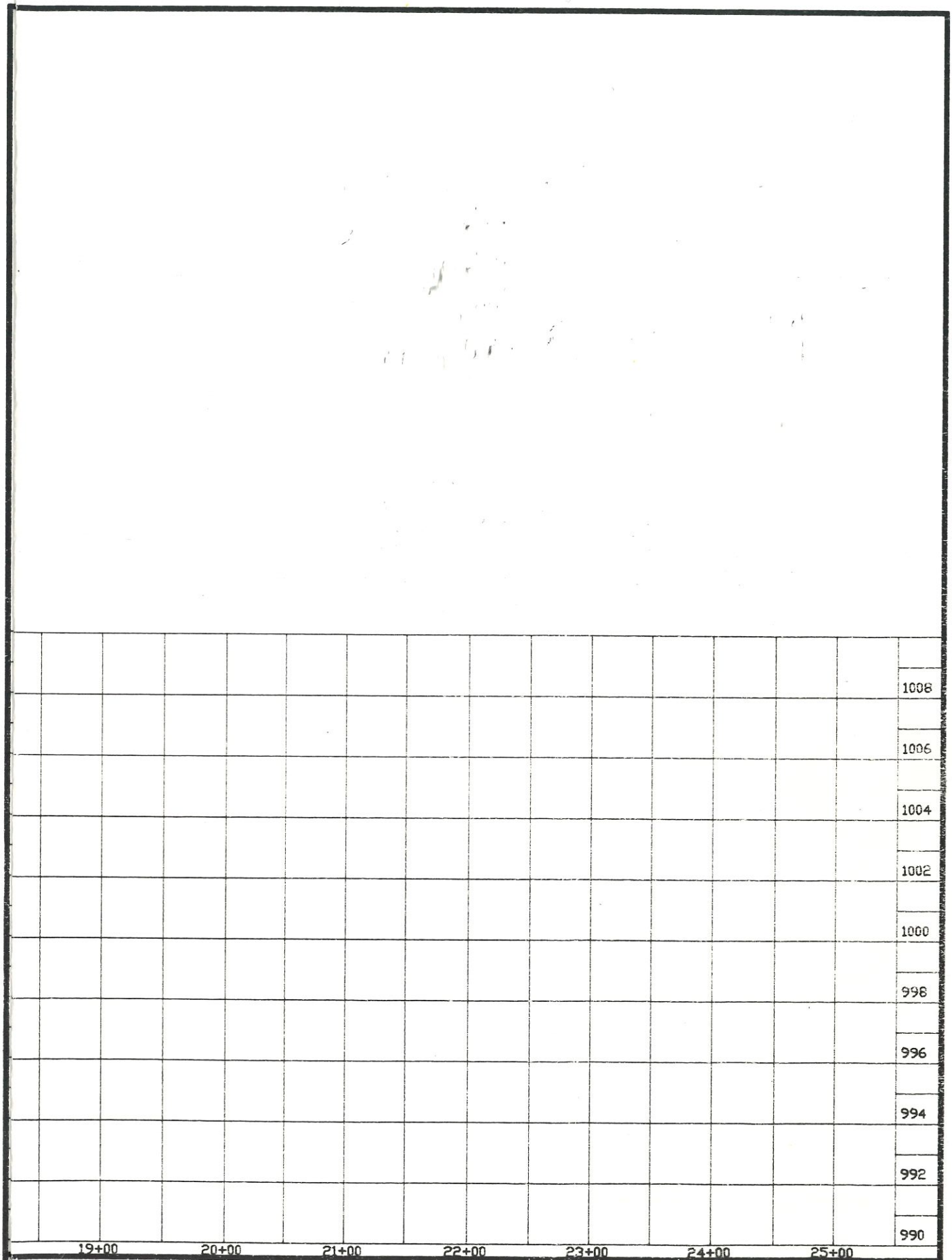
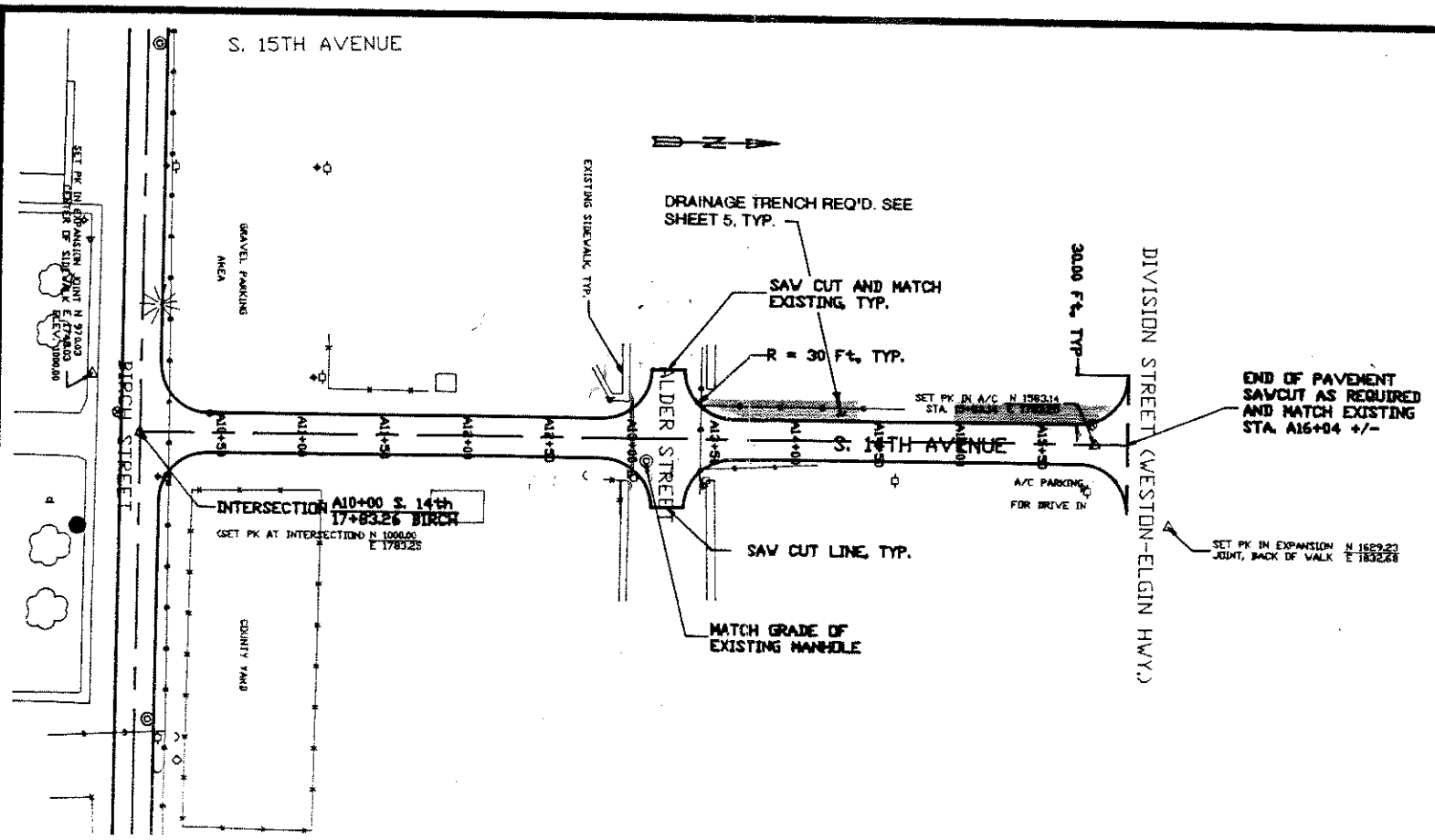
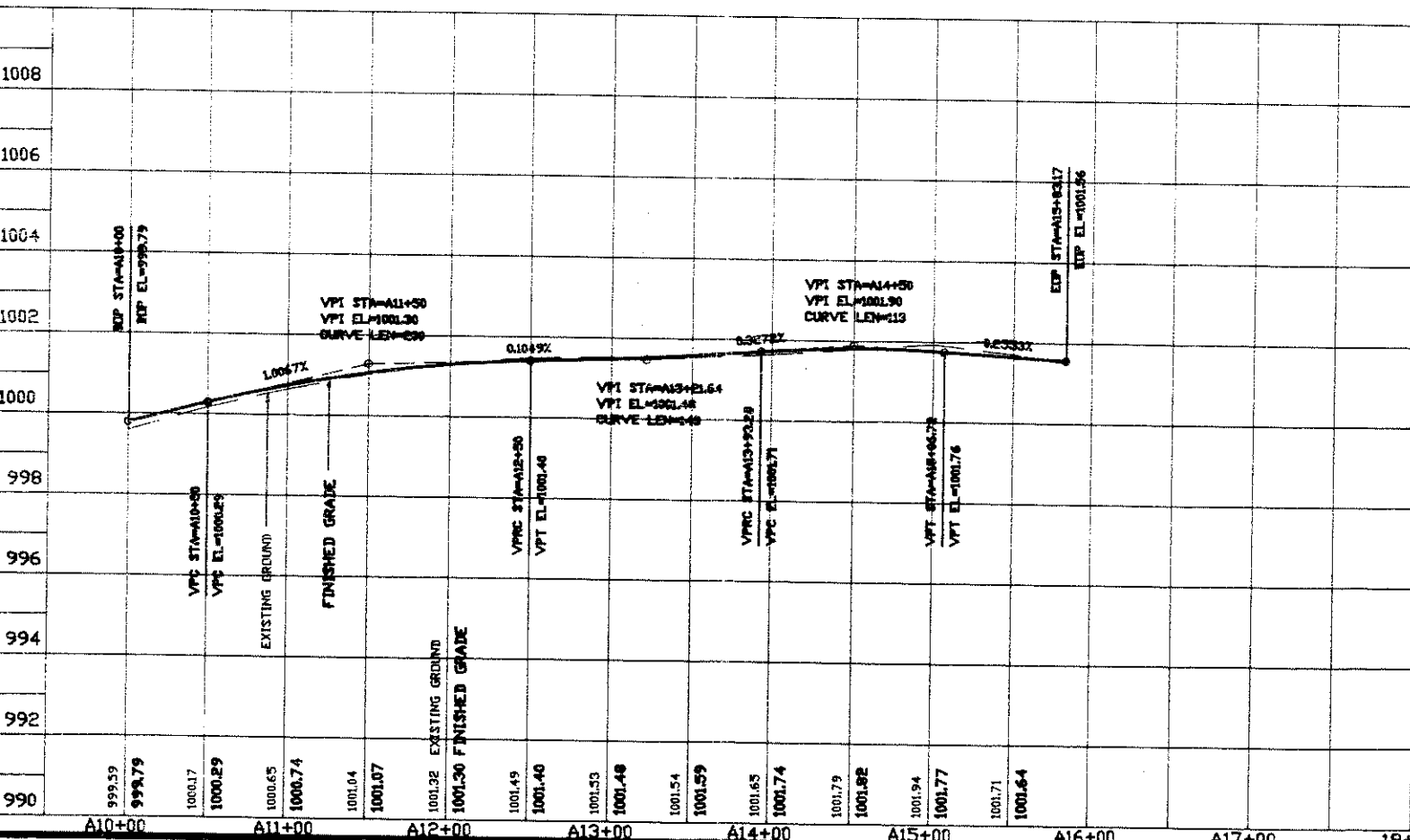


CITY OF ELGIN
BIRCH STREET AND S. 14th AVENUE IMPROVEMENTS

PLAN / PROFILE STA. A10+00 to A18+00
S. 14TH AVENUE

SHEET
3





REVISED BY H. PERRY		HORIZ. SCALE	Scale: 1"= 50'
DRAWN BY T. CRUSE		VERT. SCALE	Scale: 1"= 2'
REVIEWED BY H. PERRY		JOB NUMBER 107-20	DATE 1991

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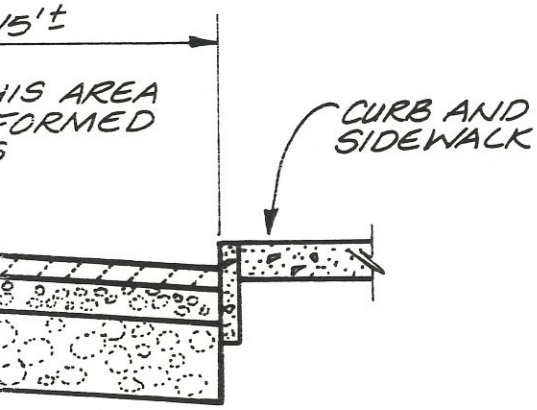
NOTE:
THE GENERAL EXCAVATION IN ROADWAY SECTION (28' WIDTH±) WILL BE PERFORMED BY OTHERS. ALSO, GENERAL PLACEMENT AND COMPACTION OF AGGREGATE BASE ROCK WILL BE PERFORMED BY OTHERS.
FINISHED GRADING OF AGGREGATE BASE ROCK, FURNISHING AND INSTALLING BASE ROCK AND SURFACE SHOULDER ROCK, EXCAVATION AND GRADING OF ROADWAY SHOULDERS, ASPHALT SURFACING, ETC. TO BE PERFORMED BY CONTRACTOR.

THERS)



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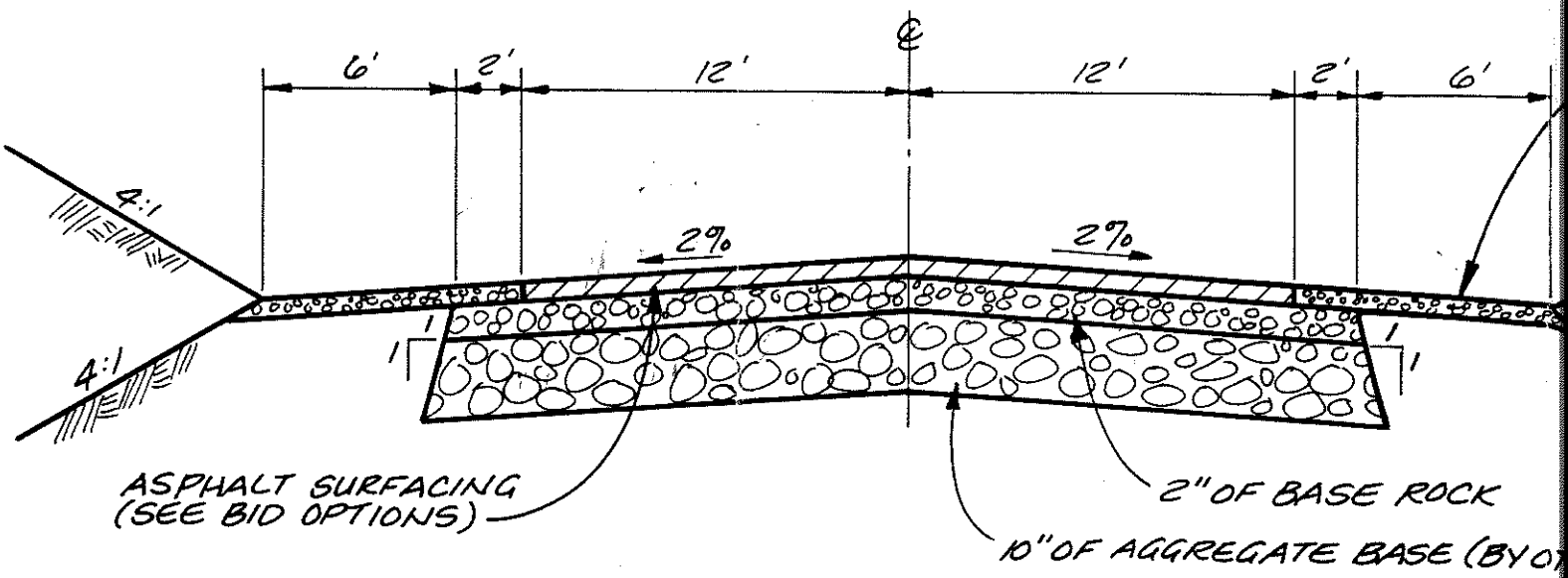
CITY OF
ELGIN, OREGON
BIRCH STREET & S. 14TH AVENUE IMPROVEMENTS

TYPICAL ROADWAY SECTIONS

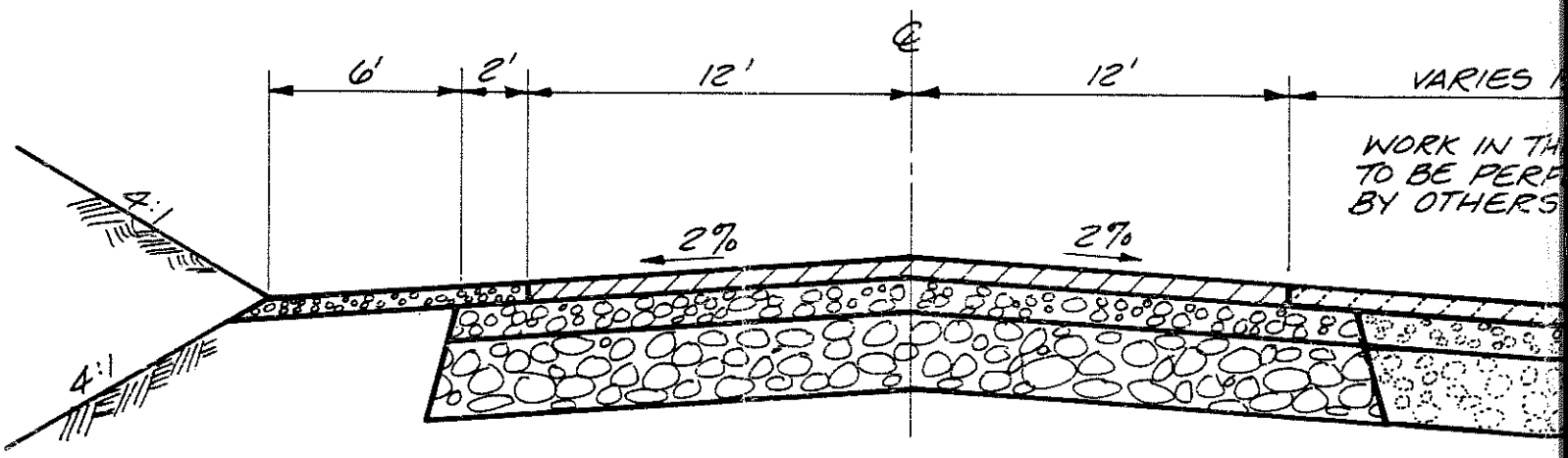
SHEET
4



TYPICAL SECTION

STA. A10+12± TO STA. A16+04±

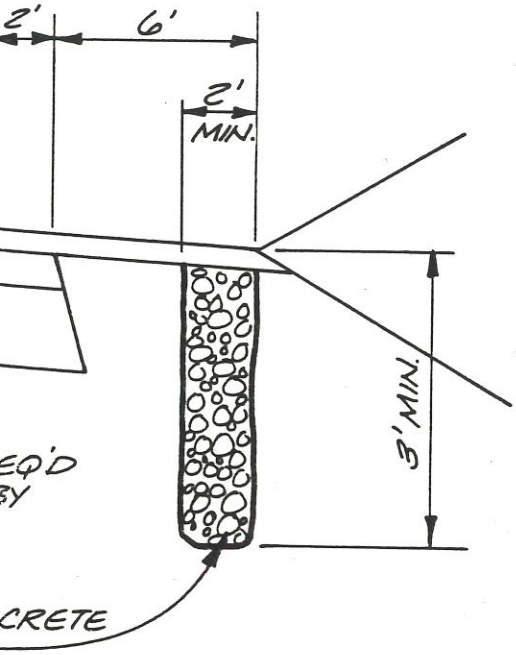
STA. 19+50± TO STA. 23+00±



NOTE:
FOR DETAILS NOT SHOWN,
SEE SECTION ABOVE.

TYPICAL SECTION

STA. 16+04± TO STA. 19+50±



SECTION

CITY OF
ELGIN, OREGON
BIRCH STREET & S. 14TH AVENUE IMPROVEMENTS

TYPICAL DRAINAGE TRENCH SECTION

SHEET
5

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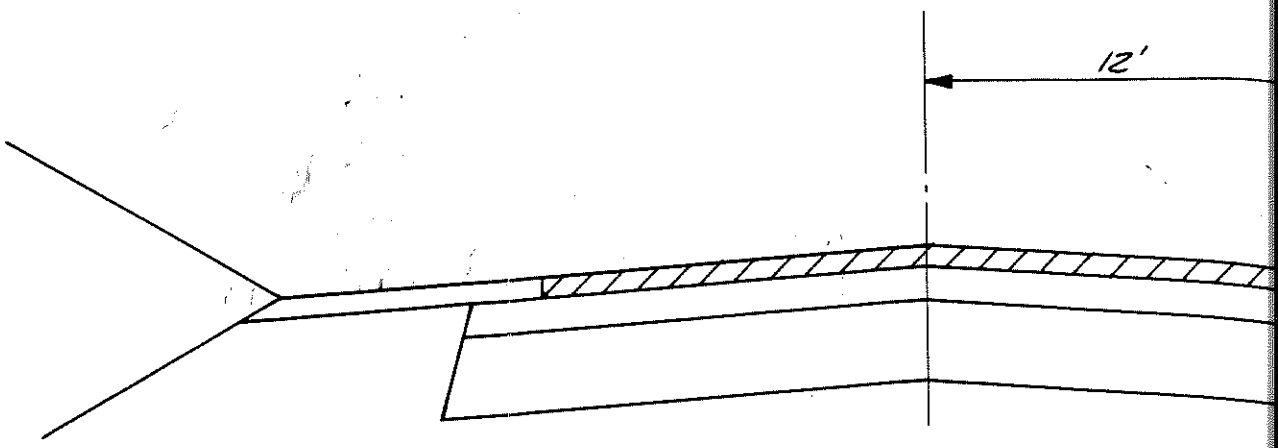
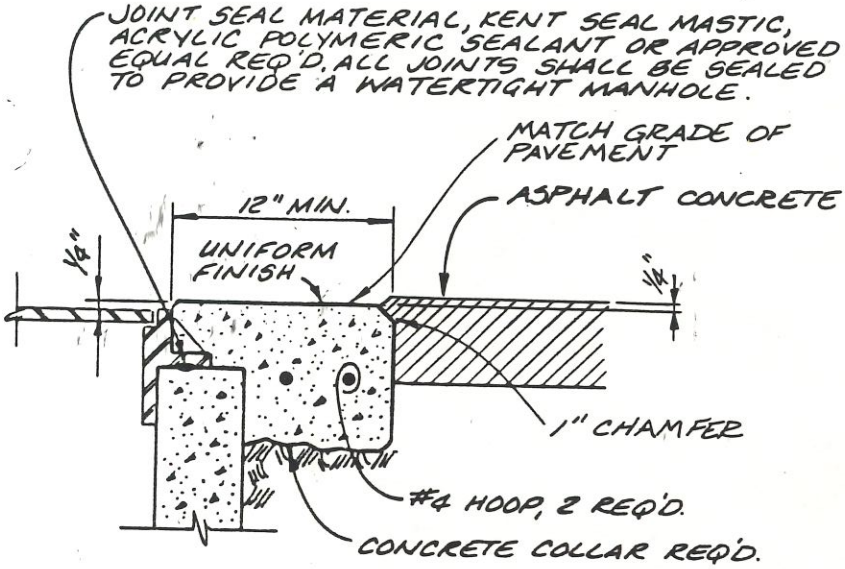


LENGTH AS
ON PLANS O
ENGINEER.

1½"-¾" CLEAN
AGGREGATE

TYPICAL DRAINAGE TRENC



MORTAR
EQ'D.
VG &

REQUIREMENTS FOR CONCRETE COLLARS:

1. CONCRETE: 3/4", 7 SACK, 4000 PSI @ 28 DAYS, 2" TO 4" SLUMP, 4-7% AIR
2. COLLAR TO BE FORMED AND BE UNIFORMLY ROUND.
3. SMOOTH BROOMED FINISH REQ'D.
4. APPLY CONCRETE CURING COMPOUND.
5. PROTECT FROM TRAFFIC FOR 4 DAYS MIN.

CONCRETE COLLAR DETAIL

IN ASPHALT PAVEMENT

NOTE:

CONCRETE COLLARS ARE REQ'D ON ALL EXISTING MANHOLES (4). NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK. THE COST OF THE WORK SHALL BE INCLUDED IN OTHER APPROPRIATE BID ITEMS.